

Welcome to STN International! Enter x:X

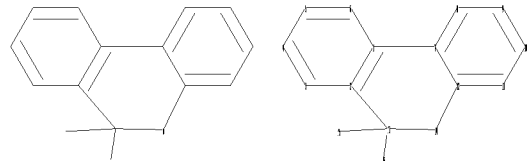
LOGINID:SSPTAAKB1794

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

\* \* \* \* \* Welcome to STN International \* \* \* \* \*

=>



chain nodes :  
15 16  
ring nodes :  
1 2 3 4 5 6 7 8 9 10 11 12 13 14  
chain bonds :  
13-15 13-16  
ring bonds :  
1-2 1-6 1-7 2-3 2-13 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12 12-14 13-14  
exact bonds :  
1-7 2-13 12-14 13-14 13-15 13-16  
normalized bonds :  
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12  
isolated ring systems :  
containing 1 :

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom 12:Atom 13:Atom 14:Atom 15:CLASS 16:CLASS

L1 STRUCTURE UPLOADED

=> s 11 sss full

FULL SEARCH INITIATED 13:53:43 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 1308 TO ITERATE

100.0% PROCESSED 1308 ITERATIONS 395 ANSWERS  
SEARCH TIME: 00.00.01

L2 395 SEA SSS FUL L1

=> s 12

L3 1160 L2

=> 13 and (electroluminescent or electroluminescence or (light emitting) or OLED)

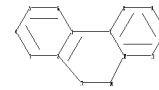
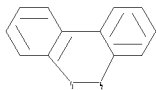
92475 ELECTROLUMINESCENT  
8 ELECTROLUMINESCENTS  
92478 ELECTROLUMINESCENT  
(ELECTROLUMINESCENT OR ELECTROLUMINESCENTS)  
26934 ELECTROLUMINESCENCE  
30 ELECTROLUMINESCENCES  
26939 ELECTROLUMINESCENCE  
(ELECTROLUMINESCENCE OR ELECTROLUMINESCENCES)  
5 ELECTROLUMINESCENSE  
26940 ELECTROLUMINESCENCE  
(ELECTROLUMINESCENCE OR ELECTROLUMINESCENSE)  
1352467 LIGHT  
12844 LIGHTS  
1356774 LIGHT  
(LIGHT OR LIGHTS)  
143446 EMITTING  
228 EMITTINGS  
143491 EMITTING  
(EMITTING OR EMITTINGS)  
78543 LIGHT EMITTING  
(LIGHT(W)EMITTING)  
7740 OLED  
3828 OLEDS  
9686 OLED  
(OLED OR OLEDS)

L4 8 L3 AND (ELECTROLUMINESCENT OR ELECTROLUMINESCENCE OR (LIGHT EMITTING) OR OLED)

=> d ibib abs hitstr 1-

YOU HAVE REQUESTED DATA FROM 8 ANSWERS - CONTINUE? Y/(N):y

=>



```
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12 13 14
ring bonds :
1-2 1-6 1-7 2-3 2-13 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12 12-14 13-14
exact/norm bonds :
1-7 2-13 12-14 13-14
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12
isolated ring systems :
containing 1 :
```

G1:C,O,S,N,P,Si,B

G2:O,S,N,P,B

Match level :  
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom 12:Atom 13:Atom 14:Atom

L5 STRUCTURE UPLOADED

=> s 15 sss full  
FULL SEARCH INITIATED 13:57:59 FILE 'REGISTRY'  
FULL SCREEN SEARCH COMPLETED - 2384835 TO ITERATE

83.9% PROCESSED 2000000 ITERATIONS 15305 ANSWERS  
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)  
SEARCH TIME: 00.00.07

FULL FILE PROJECTIONS: ONLINE \*\*INCOMPLETE\*\*  
BATCH \*\*COMPLETE\*\*  
PROJECTED ITERATIONS: 2384835 TO 2384835  
PROJECTED ANSWERS: 17844 TO 18654

L6 15305 SEA SSS FUL L5

=> s 16

L7 2681 L6

=> 17 and (electroluminescent or electroluminescence or (light emitting) or OLED)

```
92475 ELECTROLUMINESCENT
8 ELECTROLUMINESCENTS
92478 ELECTROLUMINESCENT
(ELECTROLUMINESCENT OR ELECTROLUMINESCENTS)
26934 ELECTROLUMINESCENCE
30 ELECTROLUMINESCENCES
26939 ELECTROLUMINESCENCE
(ELECTROLUMINESCENCE OR ELECTROLUMINESCENCES)
5 ELECTROLUMINESCENSE
26940 ELECTROLUMINESCENCE
(ELECTROLUMINESCENCE OR ELECTROLUMINESCENSE)
1352467 LIGHT
12844 LIGHTS
1356774 LIGHT
(LIGHT OR LIGHTS)
143446 EMITTING
228 EMITTINGS
143491 EMITTING
(EMITTING OR EMITTINGS)
78543 LIGHT EMITTING
(LIGHT(W)EMITTING)
7740 OLED
3828 OLEDs
9686 OLED
(OLED OR OLEDs)
```

L8 49 L7 AND (ELECTROLUMINESCENT OR ELECTROLUMINESCENCE OR (LIGHT EMITTING) OR OLED)

=> d ibib abs hitstr 1-  
YOU HAVE REQUESTED DATA FROM 49 ANSWERS - CONTINUE? Y/(N):y

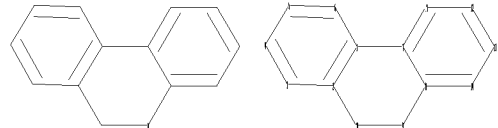
=>

---Logging off of STN---

=>

Executing the logoff script...

=>



```
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12 13 14
ring bonds :
1-2 1-6 1-7 2-3 2-10 3-4 4-5 5-6 7-8 7-11 8-9 8-14 9-10 11-12 12-13 13-14
exact bonds :
```

1-7 2-10 8-9 9-10  
 normalized bonds :  
 1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-11 8-14 11-12 12-13 13-14  
 isolated ring systems :  
 containing 1 :

Match level :  
 1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom 12:Atom 13:Atom 14:Atom

L1 STRUCTURE UPLOADED

=> s 11 sss full  
 FULL SEARCH INITIATED 09:41:19 FILE 'REGISTRY'  
 FULL SCREEN SEARCH COMPLETED - 18009 TO ITERATE

100.0% PROCESSED 18009 ITERATIONS 5197 ANSWERS  
 SEARCH TIME: 00.00.01

L2 5197 SEA SSS FUL L1

=> s 12

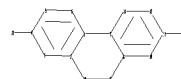
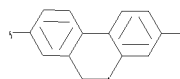
L3 2454 L2

=> 13 and (py<=2003)

24053089 PY<=2003

L4 1817 L3 AND (PY<=2003)

=>



chain nodes :  
 16 17  
 ring nodes :  
 1 2 3 4 5 6 7 8 9 10 11 12 13 14  
 chain bonds :  
 4-17 13-16  
 ring bonds :  
 1-2 1-6 1-7 2-3 2-10 3-4 4-5 5-6 7-8 7-11 8-9 8-14 9-10 11-12 12-13 13-14  
 exact/norm bonds :  
 4-17 13-16  
 exact bonds :  
 1-7 2-10 8-9 9-10  
 normalized bonds :  
 1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-11 8-14 11-12 12-13 13-14  
 isolated ring systems :  
 containing 1 :

G1:A,Id

Match level :  
 1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom 12:Atom 13:Atom 14:Atom 16:CLASS 17:CLASS

L5 STRUCTURE UPLOADED

=> s 15 sss full  
 FULL SEARCH INITIATED 09:44:48 FILE 'REGISTRY'  
 FULL SCREEN SEARCH COMPLETED - 18009 TO ITERATE

100.0% PROCESSED 18009 ITERATIONS 1206 ANSWERS  
 SEARCH TIME: 00.00.01

L6 1206 SEA SSS FUL L5

=> s 16

L7 313 L6

=> 17 and (py<=2003)

24053089 PY<=2003

L8 165 L7 AND (PY<=2003)

=> d ibib abs hitstr 1-  
 YOU HAVE REQUESTED DATA FROM 165 ANSWERS - CONTINUE? Y/(N):y

L8 ANSWER 1 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number  
 2008:1383594 CAPLUS Full:tex

Document Number  
 149:555100

Title

The Baeyer-Villiger oxidation of ketones and aldehydes

Author/Inventor

Krow, Grant R.

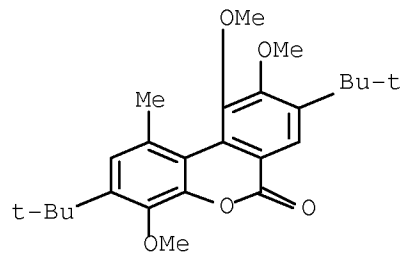
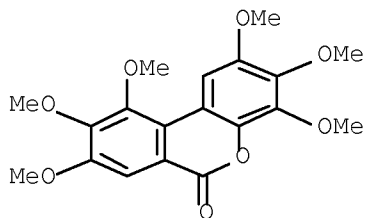
Patent Assignee/Corporate Source

Temple Univ., Philadelphia, PA, USA

Source

Organic Reactions (Hoboken, NJ, United States) ( 1993), 43, No pp. given CODEN: ORHNBA URL: <http://www3.interscience.wiley.com/jgi-bin/mrwhome/107610747/HOME>

Document Type

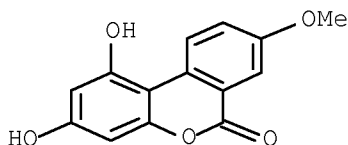


OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD  
(1 CITINGS)

CAS Registry Number

685829-30-5 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 1,3-dihydroxy-8-methoxy- (CA INDEX NAME)



OS.CITING REF COUNT: 7 THERE ARE 7 CAPLUS RECORDS THAT CITE THIS RECORD  
(7 CITINGS)

.L8 ANSWER 4 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number  
2003:657090 CAPLUS [Full text](#)

Document Number  
139:350571

Title  
Total Synthesis of (+)-Isoschizandrin Utilizing a Samarium(II) Iodide-Promoted 8-Endo Ketyl-Olefin Cyclization

Author/Inventor  
Molander, Gary A.; George, Kelly M.; Monovich, Lauren G.

Patent Assignee/Corporate Source  
Roy and Diana Vagelos Laboratories, Department of Chemistry, University of Pennsylvania Philadelphia, Philadelphia, PA, 19104-6323, USA

Source  
Journal of Organic Chemistry (2003), 68(25), 9533-9540 CODEN: JOCEAH; ISSN: 0022-3263

Document Type  
Journal

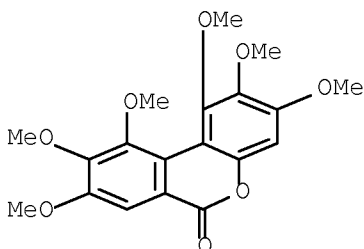
Language  
English

Abstract  
The thirteen-step synthesis of (+)-isoschizandrin reported herein features a samarium(II) iodide-promoted 8-endo ketyl-olefin coupling to assemble the eight-membered ring present in the target concomitantly with the required functionality and stereochem. In constructing (+)-isoschizandrin as a single atropisomer, the synthesis utilizes a kinetic resolution of a seven-membered lactone using a CBS-oxazaborolidine.

Hit Structure

CAS Registry Number  
611233-67-1 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 1,2,3,8,9,10-hexamethoxy- (CA INDEX NAME)



OS.CITING REF COUNT: 51 THERE ARE 51 CAPLUS RECORDS THAT CITE THIS  
RECORD (54 CITINGS)

Accession Number

2003:331200 CAPLUS [Full-text](#)

Document Number

138:396164

Title

Repeated Oral Administration of High Doses of the Pomegranate Ellagitannin Punicalagin to Rats for 37 Days Is Not Toxic

Author/Inventor

Cerda, Begona; Ceron, Jose J.; Tomas-Barberan, Francisco A.; Espin, Juan Carlos

Patent Assignee/Corporate Source

Research Group on Quality Safety and Bioactivity of Plant Foods Department of Food Science and Technology, CEBAS-CSIC, Murcia, 30080, Spain

Source

Journal of Agricultural and Food Chemistry ( 2003), 51(11), 3493-3501 CODEN: JAFCAU; ISSN: 0021-8561

Document Type

Journal

Language

English

Abstract

The water-soluble ellagitannin punicalagin has been reported to be toxic to cattle. Taking into account that this antioxidant polyphenol is very abundant in pomegranate juice ( $\geq 2$  g/L), the present study evaluated the possible toxic effect of punicalagin in Sprague-Dawley rats upon repeated oral administration of a 6% punicalagin-containing diet for 37 days. Punicalagin and related metabolites were identified by HPLC-DAD-MS-MS in plasma, liver, and kidney. Five punicalagin-related metabolites were detected in liver and kidney, i.e., two ellagic acid derivs., gallic acid, 3,8-dihydroxy-6H-dibenzo[b,d]pyran-6-one glucuronide, and 3,8,10-trihydroxy-6H-dibenzo[b,d]pyran-6-one. Feedstuff intake, food utility index, and growth rate were lower in treated rats during the first 15 days without significant adverse effects, which could be due to the lower nutritional value of the punicalagin-enriched diet together with a decrease in its palatability (lower food intake). No significant differences were found in treated rats in any blood parameter analyzed (including the antioxidant enzymes glutathione peroxidase and superoxide dismutase) with the exception of urea and triglycerides, which remained at low values throughout the experiment. Although the reason for the decrease is unclear, it could be due to the lower nutritional value of the punicalagin-enriched diet with respect to the standard rat food. Histopathol. anal. of liver and kidney corroborated the absence of toxicity. In principle, the results reported here, together with the large safety margin considered, indicate the lack of toxic effect of punicalagin in rats during the 37 day period investigated. However, taking into account the high punicalagin content of pomegranate-derived foodstuffs, safety evaluation should be also carried out in humans with a lower dose and during a longer period of intake.

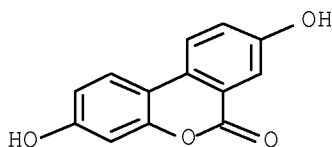
Hit Structure

CAS Registry Number

1143-70-0 CAPLUS

Chemical or Trade Name

6H-Dibenzo[b,d]pyran-6-one, 3,8-dihydroxy- (CA INDEX NAME)

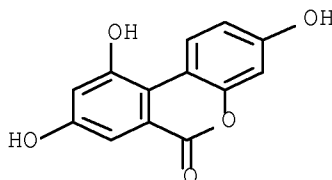


CAS Registry Number

531512-26-2 CAPLUS

Chemical or Trade Name

6H-Dibenzo[b,d]pyran-6-one, 3,8,10-trihydroxy- (CA INDEX NAME)

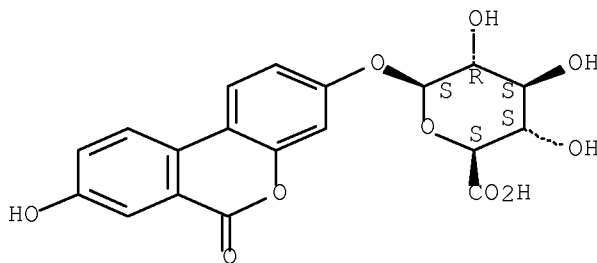


CAS Registry Number

531512-27-3 CAPLUS

Chemical or Trade Name

$\beta$ -D-Glucopyranosiduronic acid, 8-hydroxy-6-oxo-6H-dibenzo[b,d]pyran-3-yl (CA INDEX NAME)



OS.CITING REF COUNT: 61 THERE ARE 61 CAPLUS RECORDS THAT CITE THIS RECORD (62 CITINGS)

Accession Number

2003:287982 CAPLUS [Full-text](#)

Document Number  
139:132795

Title  
Evaluation of the bioavailability and metabolism in the rat of punicalagin, an antioxidant polyphenol from pomegranate juice

Author/Inventor  
Cerdá, Begona; Llorach, Rafael; Ceron, Jose J.; Espin, Juan Carlos; Tomas-Barberan, Francisco A.

Patent Assignee/Corporate Source  
Department of Food Science and Technology, CEBAS (CSIC), Murcia, 30080, Spain

Source  
European Journal of Nutrition (2003), 42(1), 18-28 CODEN: EJUUFZ; ISSN: 1436-6207

Document Type  
Journal

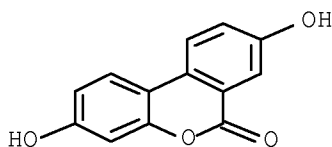
Language  
English

**Abstract**  
Punicalagin is an antioxidant ellagitannin of pomegranate juice responsible for its high antioxidant activity. Nothing is known about the bioavailability and metabolism of punicalagin or other food ellagitannins. The bioavailability and metabolism of punicalagin was studied in 10 rats fed standard diets with 0 or 6% punicalagin. Samples of urine and feces were taken every 2 days for 37 days and blood plasma every week. The metabolites were analyzed by HPLC-MS-MS. The daily intakes of punicalagin ranged 0.6-1.2 g and 3-6% of the ingested amount was excreted as identified metabolites in feces and urine. In feces, punicalagin was transformed to hydrolysis products and partly to 6H-dibenzo[b,d]pyran-6-one metabolites by the intestinal microflora. In blood plasma, punicalagin was detected at concns. approx. 30 µg/mL, and glucuronides of Me ether derivs. of ellagic acid were also detected. The 6H-dibenzo[b,d]pyran-6-one derivs. were also detected especially during the last few weeks of the experiment. In urine, the main metabolites were the 6H-dibenzo[b,d]pyran-6-one derivs., as aglycons or glucuronides. As only 3-6% of the ingested punicalagin amount was detected as such or as metabolites in urine and feces, most of this ellagitannin has to be converted to undetectable metabolites (i.e. CO<sub>2</sub>) or accumulated in non-analyzed tissues, but only traces of punicalagin metabolites were detected in the liver or kidney.

**Hit Structure**

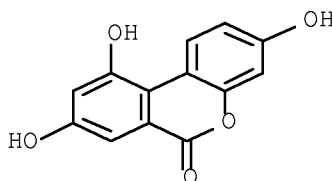
CAS Registry Number  
1143-70-0 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3,8-dihydroxy- (CA INDEX NAME)



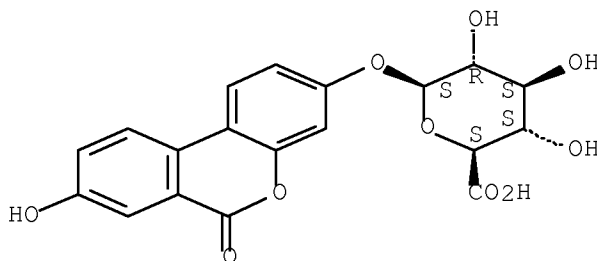
CAS Registry Number  
531512-26-2 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3,8,10-trihydroxy- (CA INDEX NAME)



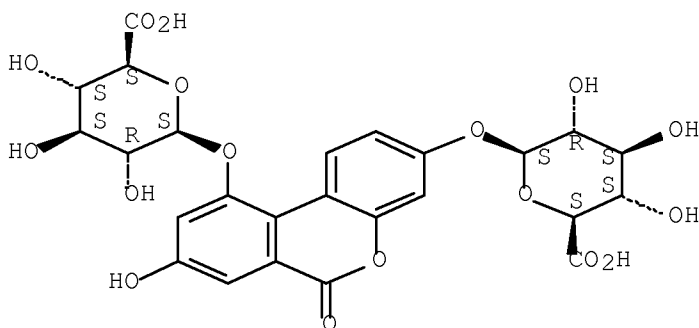
CAS Registry Number  
531512-27-3 CAPLUS

Chemical or Trade Name  
β-D-Glucopyranosiduronic acid,  
8-hydroxy-6-oxo-6H-dibenzo[b,d]pyran-3-yl (CA INDEX NAME)



CAS Registry Number  
566138-11-2 CAPLUS

Chemical or Trade Name  
β-D-Glucopyranosiduronic acid,  
8-hydroxy-6-oxo-6H-dibenzo[b,d]pyran-3,10-diyl bis- (9CI) (CA INDEX NAME)



OS.CITING REF COUNT: 69 THERE ARE 69 CAPLUS RECORDS THAT CITE THIS RECORD (69 CITINGS)

.L8 ANSWER 7 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number 2003:207622 CAPLUS [Full-text](#)

Document Number 138:368716

Title Synthesis and Evaluation of a Novel Nonsteroidal-Specific Endothelial Cell Proliferation Inhibitor

Author/Inventor Schmidt, Jonathan M.; Tremblay, Gilles B.; Page, Martine; Mercure, Julie; Feher, Miklos; Dunn-Dufault, Robert; Peter, Markus G.; Redden, Peter R.

Patent Assignee/Corporate Source SignalGene Inc., Guelph, ON, N1G 4P7, Can.

Source Journal of Medicinal Chemistry (2003), 46(8), 1289-1292 CODEN: JMCMAR; ISSN: 0022-2623

Document Type Journal

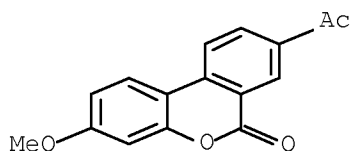
Language English

Abstract The identification of agents with specific antiproliferative or cytostatic activity against endothelial cells has significant value for the treatment of pathologies associated with angiogenesis, including solid tumors. The dibenzo[b,d]pyran-6-ones [R = H, R1 = OMe; R = OMe, R1 = OH] were prepared Preliminary in vitro activity data indicate that this scaffold is a promising lead for the development of specific inhibitors of endothelial cell proliferation.

Hit Structure

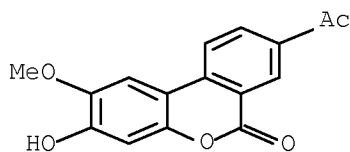
CAS Registry Number 448218-66-4 CAPLUS

Chemical or Trade Name 6H-Dibenzo[b,d]pyran-6-one, 8-acetyl-3-methoxy- (CA INDEX NAME)



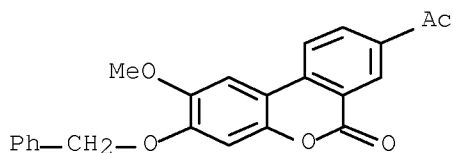
CAS Registry Number 524713-48-2 CAPLUS

Chemical or Trade Name 6H-Dibenzo[b,d]pyran-6-one, 8-acetyl-3-hydroxy-2-methoxy- (CA INDEX NAME)



CAS Registry Number 524713-47-1 CAPLUS

Chemical or Trade Name 6H-Dibenzo[b,d]pyran-6-one, 8-acetyl-2-methoxy-3-(phenylmethoxy)- (CA INDEX NAME)



OS.CITING REF COUNT: 20 THERE ARE 20 CAPLUS RECORDS THAT CITE THIS RECORD (20 CITINGS)

L8 ANSWER 8 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number 2002:658078 CAPLUS [Full-text](#)

Document Number 137:201233

Title Preparation of aminoalkoxyphenylbenzochromenes and -phenanthrenes as nonsteroidal estrogen receptor ligands

Author/Inventor Schmidt, Jonathan Martin; Mercure, Julie; Lowell, Jeffry Lawrence; Kwiatkowski, Stefan; Pupek, Krzysztof; Zhu, Shuguang; Whelan, John; Lazarowich, Natalie

Patent Assignee/Corporate Source Nanodesign Inc., Can.

Source PCT Int. Appl., 70 pp. CODEN: PIXXD2

Document Type Patent

Language English

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002066428	A2	20020829	WO 2002-CA228	20020221
WO 2002066428	A3	20021024		
US 20020156077	A1	20021024	US 2001-934254	20010821
US 6599921	B2	20030729		
AU 2002238314	A1	20020904	AU 2002-238314	20020221

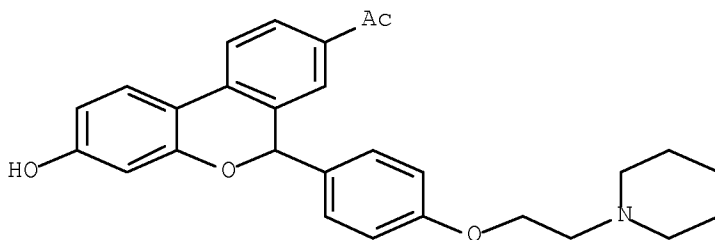
Abstract

Title compds. [I; R1 = pyrrolidinyl, piperidinyl, (di)methylpyrrolidinyl, morpholino, Me2N, Et2N, (Me2CH)2N, hexamethyleneimino; R2 = Pr, CH2CMe2H, CH:CHMe, Ac, CH(OH)Me, etc.; R3, R4 = H, Me; R5 = OH, CO2Me; n = 1-4; Z = C, O, S], were prepared. Thus, 3-methoxy-8-(2-methyl-1,3-dioxolan-2-yl)benzo[c]chroman-6-one (preparation given) in THF at -78° was treated with a mixture prepared from 1-[2-(4-bromophenoxy)ethyl]piperidine BuLi in THF followed by stirring for 2 h to give 48% (+)-3-methoxy-8-(2-methyl-1,3-dioxolan-2-yl)-6-[4-(2-piperidin-1-ylethoxy)phenyl]-6H-benzo[c]chromen-6-ol. The latter in CH2Cl2 at -78° was treated with Et2SiH and BF3.Et2O followed by stirring overnight to give 32% (+)-1-[3-methoxy-6-[4-(2-piperidin-1-ylethoxy)phenyl]-6H-benzo[c]chromen-8-yl]ethanone. This was treated with BBr3 in CH2Cl2 at -78° followed by warming to 15° overnight to give (+)-1-[3-hydroxy-6-[4-(2-piperidin-1-ylethoxy)phenyl]-6H-benzo[c]chromen-8-yl]ethanone. Tested I bound to estrogen  $\alpha$  receptors with IC50 = 0.018-0.039  $\mu$ M.

Hit Structure

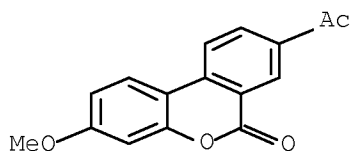
CAS Registry Number 452307-41-4 CAPLUS

Chemical or Trade Name Ethanone, 1-[3-hydroxy-6-[4-[2-(1-piperidinyl)ethoxy]phenyl]-6H-dibenzo[b,d]pyran-8-yl]-, (+)- (CA INDEX NAME)



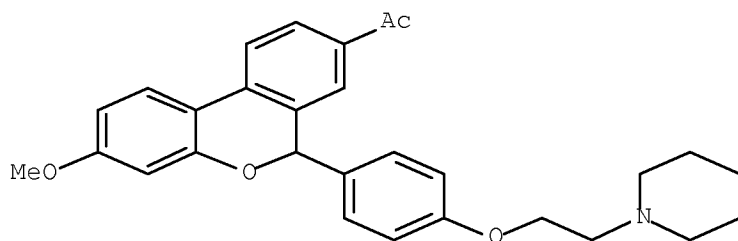
CAS Registry Number 448218-66-4 CAPLUS

Chemical or Trade Name 6H-Dibenzo[b,d]pyran-6-one, 8-acetyl-3-methoxy- (CA INDEX NAME)



CAS Registry Number 452307-50-5 CAPLUS

Chemical or Trade Name  
Ethanone, 1-[3-methoxy-6-[4-[2-(1-piperidinyl)ethoxy]phenyl]-6H-  
dibenzo[b,d]pyran-8-yl]-, (+)- (CA INDEX NAME)



OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD  
(3 CITINGS)

\_L8 ANSWER 9 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number  
2002:638294 CAPLUS [Full-text](#)

Document Number  
137:169420

Title  
Preparation of benzochromenones as antiproliferative agents

Author/Inventor  
Schmidt, Johnathan Martin; Redden, Peter; Mercure, Julie; Zhu, Shuguang; Whelan, John; Lazarowych, Natalie  
Patent Assignee/Corporate Source  
Can.

Source  
U.S. Pat. Appl. Publ., 17 pp. CODEN: USXXCO

Document Type  
Patent

Language  
English

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20020115711	A1	20020822	US 2001-934086	20010821
US 6632835	B2	20031014		
CA 2438713	A1	20020829	CA 2002-2438713	20020221
WO 2002066467	A1	20020829	WO 2002-CA227	20020221
AU 2002234466	A1	20020904	AU 2002-234466	20020221
AU 2002234466	B2	20060216		
EP 1373260	A1	20040102	EP 2002-701135	20020221
EP 1373260	B1	20080528		
AT 396989	T	20080615	AT 2002-701135	20020221
ES 2307721	T3	20081201	ES 2002-701135	20020221

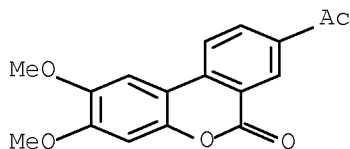
#### Abstract

Title compds. (I; R1 = H, OH, alkoxy; R2 = alkanoyl, 2-alkyl-1,3-dioxolan-2-yl, etc.; R4 = H, OH, OMe, OEt, OCF3) were prepared Thus, Me 5-acetyl-2-trifluoromethylsulfonyloxybenzoate was condensed with 2,4-(MeO) 2C6H3B(OH)2 and the saponified product cyclized to give, after ketalization, I [R1 = MeO, R2 = 8-(2-Me-1,3-dioxolan-2-yl), R4 = H]. Data for biol. activity of I were given.

#### Hit Structure

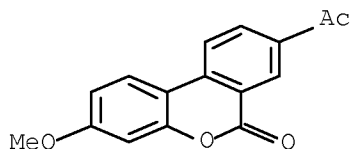
CAS Registry Number  
448218-57-3 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 8-acetyl-2,3-dimethoxy- (CA INDEX NAME)



CAS Registry Number  
448218-66-4 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 8-acetyl-3-methoxy- (CA INDEX NAME)



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD  
(1 CITINGS)

\_L8 ANSWER 10 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number  
2002:558442 CAPLUS [Full-text](#)

Document Number  
137:247470

Title  
On the Verge of Axial Chirality: Atroposelective Synthesis of the AB-Biaryl Fragment of Vancomycin

Author/Inventor  
Bringmann, Gerhard; Menche, Dirk; Muhlbacher, Jorg; Reichert, Matthias; Saito, Nozomi; Pfeiffer, Steven S.; Lipshutz, Bruce H.  
Patent Assignee/Corporate Source  
Institut fur Organische Chemie, Universitat Wurzburg, Wurzburg, D-97074, Germany

Source  
Organic Letters (2002), 4(17), 2833-2836 CODEN: ORLEF7; ISSN: 1523-7060

Document Type  
Journal

Language  
English

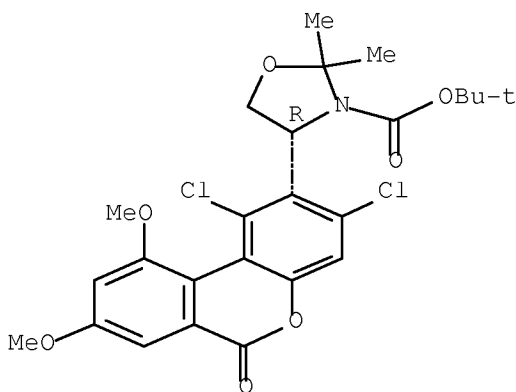
Abstract

Using the "lactone concept", differently substituted AB-biaryl fragments (I; R = Me, t-Bu) of vancomycin have been synthesized atroposelectively. Their otherwise configurational instability was remedied by inclusion of two chlorine atoms in the B ring to give (II). Starting from a still configurationally unstable lactone-bridged precursor, we obtained this biaryl with high atroposelectivity (dr 94:6) by ring cleavage with dynamic kinetic diastereomeric resolution

#### Hit Structure

CAS Registry Number  
461031-87-8 CAPLUS

Chemical or Trade Name  
3-Oxazolidinecarboxylic acid, 4-(1,3-dichloro-8,10-dimethoxy-6-oxo-6H-dibenzo[b,d]pyran-2-yl)-2,2-dimethyl-, 1,1-dimethylethyl ester, (4R)- (CA INDEX NAME)



OS.CITING REF COUNT: 20 THERE ARE 20 CAPLUS RECORDS THAT CITE THIS RECORD (20 CITINGS)

, L8 ANSWER 11 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number  
2002:104048 CAPLUS [Full-text](#)  
Document Number  
136:352624

Title  
Antioxidative effects of dibenzo- $\alpha$ -pyrones in fruits of *Trapa natans* on lipid peroxidation  
Author/Inventor  
Shirataki, Yoshiaki; Toda, Shizuo  
Patent Assignee/Corporate Source  
Faculty of Pharmaceutical Sciences, Josai University, 1-1 Keyakidai Sakado, Saitama, 350-0295, Japan

Source  
Natural Medicines (Tokyo, Japan) (2001), 55(5), 247-250 CODEN: NMEDEO; ISSN: 1340-3443

Document Type  
Journal

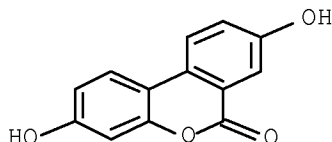
Language  
English

Abstract  
Three dibenzo- $\alpha$ -pyrones, 3-hydroxy-6H-dibenzo[b,d]pyran-6-one (I), 3,8-dihydroxy-6H-dibenzo[b,d]pyran-6-one (II), 3,9-dihydroxy-6H-dibenzo[b,d]pyran-6-one (III) isolated from the fruits of *Trapa natans*, inhibited lipid peroxidation, which was induced by interaction of Hb and hydrogen peroxide in vitro. While II and III have antioxidative effects, inhibitory effect of III was stronger than those of II, Me gallate and gallic acid as related compds. Antioxidative effect of I was weak. The results demonstrated that the antioxidative properties of dibenzo- $\alpha$ -pyrones which have a hydroxy group at the 3-position, are derived from hydroxy groups at the other positions.

#### Hit Structure

CAS Registry Number  
1143-70-0 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3,8-dihydroxy- (CA INDEX NAME)



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

, L8 ANSWER 12 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number  
2001:833866 CAPLUS [Full-text](#)  
Document Number  
135:371633

Title  
Preparation of 6H-dibenzo[b,d]pyran derivatives as glucocorticoid receptor antagonists for treatment of diabetes

Author/Inventor  
Kym, Philip R.; Lane, Benjamin C.; Pratt, John K.; Von Geldern, Tom; Winn, Martin; Brennenman, Jehrod; Patel, Jyoti R.; Arendsen, David L.; Akritopoulou-zanze, Irini; Ashworth, Kimba L.; Hartandi, Kresna  
Patent Assignee/Corporate Source  
Kym, Philip, USA

Source  
U.S. Pat. Appl. Publ., 94 pp., Cont.-in-part of U.S. Ser. No. 654,322. CODEN: USXXCO

Document Type  
Patent

Language

English

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20010041802	A1	20011115	US 2001-795998	20010228
US 6593480	B2	20030715		
US 6436986	B1	20020820	US 2000-635349	20000809
US 6329534	B1	20011211	US 2000-654322	20000901
WO 2002070507	A2	20020912	WO 2002-US4541	20020116
WO 2002070507	A3	20021121		

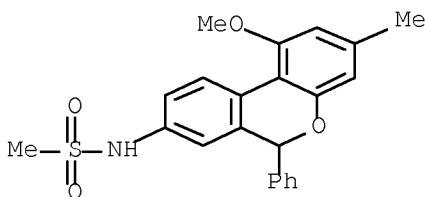
Abstract

The title compds. [I; R1 = alkanoyl, CN, halo, etc.; R2 = H, R1; R3, R4, R7-R9 = H, R1; L = a bond, alkylene; R5 = alkanoyl, alkoxy, aryl, etc.; R6 = H, alkyl; LR5 and R6 together = A(CH<sub>2</sub>)<sub>d</sub> (wherein d = 1-4; A = CH<sub>2</sub>, O, S, etc.) to form a spiro ring; R10, R11 = H, alkyl, aryl, etc.], useful for treating type II diabetes, obesity, hyperglycemia, inadequate glucose clearance, hyperinsulinemia, hypertriglyceridemia, and high-circulating glucocorticoid levels, were prepared. E.g., a multi-step synthesis of I [R1 = OMe; R2-R4 = H; L = a bond; R5 = 3-F<sub>3</sub>CC<sub>6</sub>H<sub>4</sub>; R6 = H; R7 = Me; R8, R9 = H; R10 = SO<sub>2</sub>Me; R11 = H] which showed 82.1% GR binding inhibition at 1.7  $\mu$ M, was given.

Hit Structure

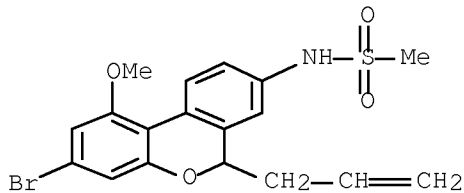
CAS Registry Number  
373622-02-7 CAPLUS

Chemical or Trade Name  
Methanesulfonamide, N-(1-methoxy-3-methyl-6-phenyl-6H-dibenzo[b,d]pyran-8-yl)- (CA INDEX NAME)



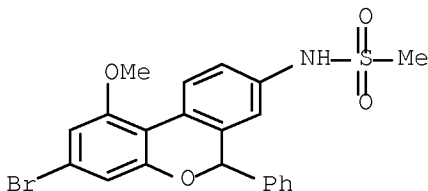
CAS Registry Number  
373626-36-9 CAPLUS

Chemical or Trade Name  
Methanesulfonamide, N-(3-bromo-1-methoxy-6-(2-propen-1-yl)-6H-dibenzo[b,d]pyran-8-yl)- (CA INDEX NAME)



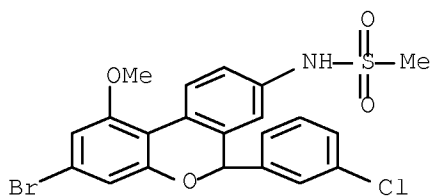
CAS Registry Number  
373626-37-0 CAPLUS

Chemical or Trade Name  
Methanesulfonamide, N-(3-bromo-1-methoxy-6-phenyl-6H-dibenzo[b,d]pyran-8-yl)- (CA INDEX NAME)



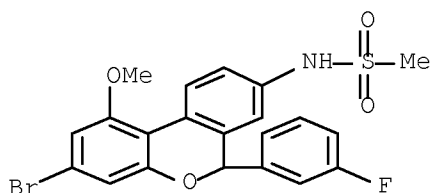
CAS Registry Number  
373626-38-1 CAPLUS

Chemical or Trade Name  
Methanesulfonamide, N-(3-bromo-6-(3-chlorophenyl)-1-methoxy-6H-dibenzo[b,d]pyran-8-yl)- (CA INDEX NAME)



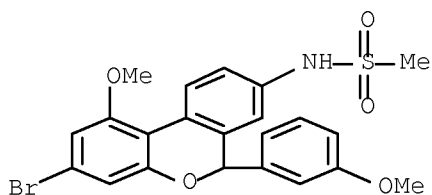
CAS Registry Number  
373626-39-2 CAPLUS

Chemical or Trade Name  
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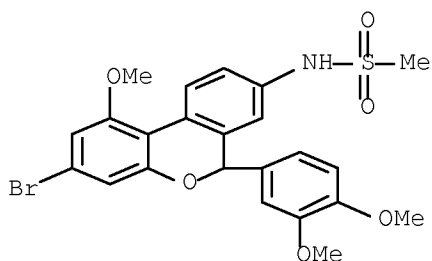
CAS Registry Number  
373626-40-5 CAPLUS

Chemical or Trade Name  
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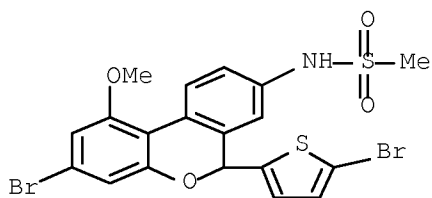
CAS Registry Number  
373626-41-6 CAPLUS

Chemical or Trade Name  
Methanesulfonamide, N-[3-bromo-6-(3,4-dimethoxyphenyl)-1-methoxy-6H-dibenzo[b,d]pyran-8-yl]- (CA INDEX NAME)



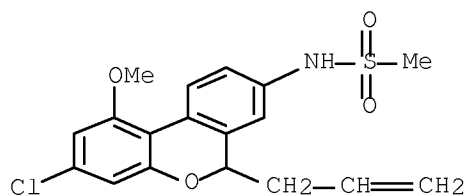
CAS Registry Number  
373626-42-7 CAPLUS

Chemical or Trade Name  
Methanesulfonamide, N-[3-bromo-6-(5-bromo-2-thienyl)-1-methoxy-6H-dibenzo[b,d]pyran-8-yl]- (CA INDEX NAME)



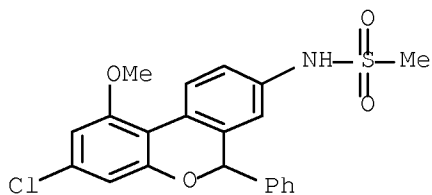
CAS Registry Number  
373626-43-8 CAPLUS

Chemical or Trade Name  
Methanesulfonamide, N-[3-chloro-1-methoxy-6-(2-propen-1-yl)-6H-dibenzo[b,d]pyran-8-yl]- (CA INDEX NAME)



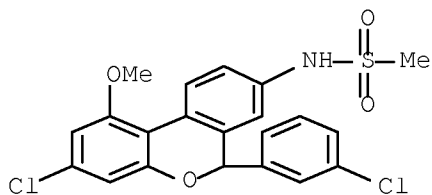
CAS Registry Number  
373626-44-9 CAPLUS

Chemical or Trade Name  
Methanesulfonamide, N-(3-chloro-1-methoxy-6-phenyl-6H-dibenzo[b,d]pyran-8-yl)- (CA INDEX NAME)



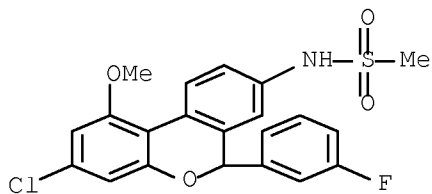
CAS Registry Number  
373626-45-0 CAPLUS

Chemical or Trade Name  
Methanesulfonamide, N-[3-chloro-6-(3-chlorophenyl)-1-methoxy-6H-dibenzo[b,d]pyran-8-yl]- (CA INDEX NAME)



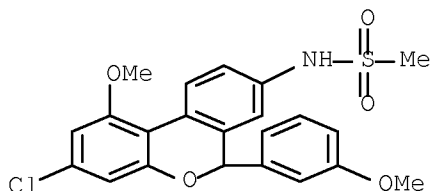
CAS Registry Number  
373626-46-1 CAPLUS

Chemical or Trade Name  
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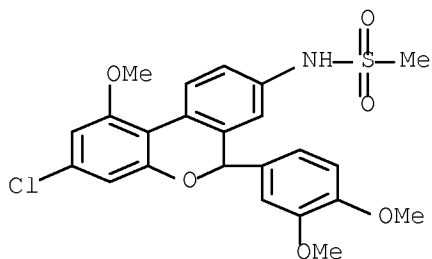
CAS Registry Number  
373626-47-2 CAPLUS

Chemical or Trade Name  
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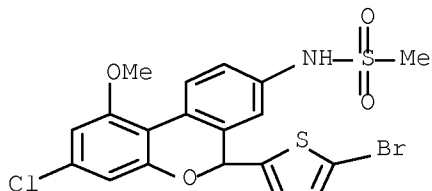
CAS Registry Number  
373626-48-3 CAPLUS

Chemical or Trade Name  
Methanesulfonamide, N-[3-chloro-6-(3,4-dimethoxyphenyl)-1-methoxy-6H-dibenzo[b,d]pyran-8-yl]- (CA INDEX NAME)



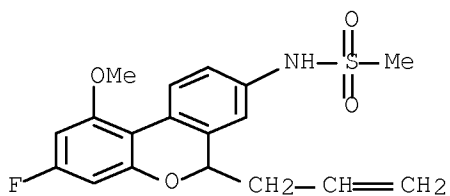
CAS Registry Number  
373626-49-4 CAPLUS

Chemical or Trade Name  
Methanesulfonamide, N-[6-(5-bromo-2-thienyl)-3-chloro-1-methoxy-6H-dibenzo[b,d]pyran-8-yl]- (CA INDEX NAME)



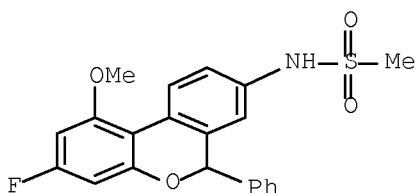
CAS Registry Number  
373626-50-7 CAPLUS

Chemical or Trade Name  
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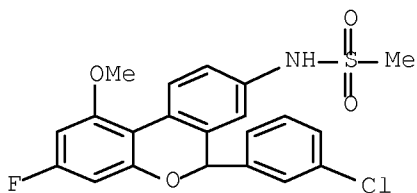
CAS Registry Number  
373626-51-8 CAPLUS

Chemical or Trade Name  
Methanesulfonamide, N-(3-fluoro-1-methoxy-6-phenyl-6H-dibenzo[b,d]pyran-8-yl)- (CA INDEX NAME)



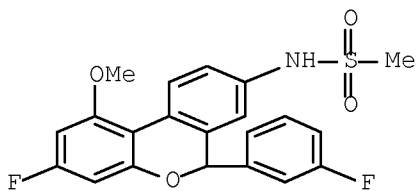
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373626-52-9 CAPLUS

Chemical or Trade Name  
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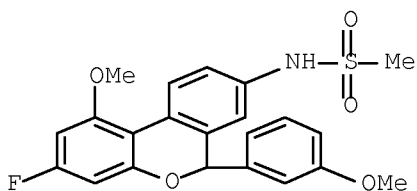
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Chemical or Trade Name  
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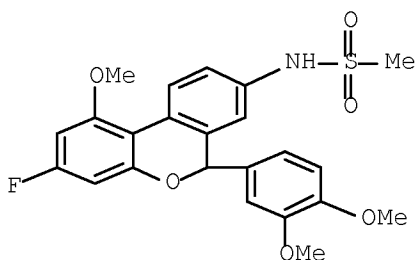
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Chemical or Trade Name  
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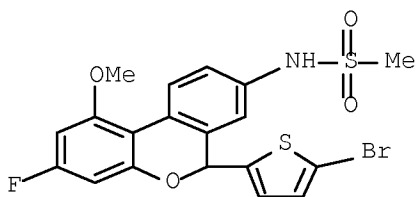
CAS Registry Number  
373626-55-2 CAPLUS

Chemical or Trade Name  
Methanesulfonamide, N-[6-(3,4-dimethoxyphenyl)-3-fluoro-1-methoxy-6H-dibenzo[b,d]pyran-8-yl]- (CA INDEX NAME)



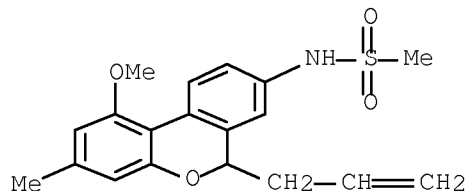
CAS Registry Number  
373626-56-3 CAPLUS

Chemical or Trade Name  
Methanesulfonamide, N-[6-(5-bromo-2-thienyl)-3-fluoro-1-methoxy-6H-dibenzo[b,d]pyran-8-yl]- (CA INDEX NAME)



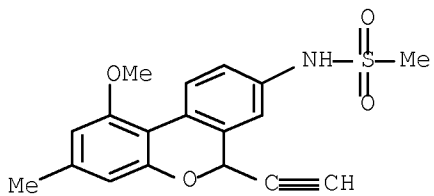
CAS Registry Number  
373626-57-4 CAPLUS

Chemical or Trade Name  
Methanesulfonamide, N-[1-methoxy-3-methyl-6-(2-propen-1-yl)-6H-dibenzo[b,d]pyran-8-yl]- (CA INDEX NAME)



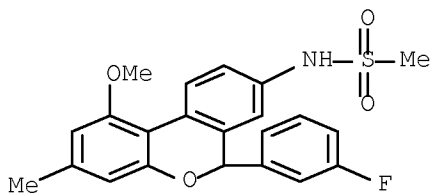
CAS Registry Number  
373626-58-5 CAPLUS

Chemical or Trade Name  
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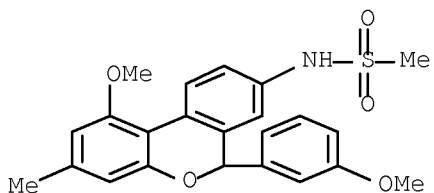
CAS Registry Number  
373626-59-6 CAPLUS

Chemical or Trade Name  
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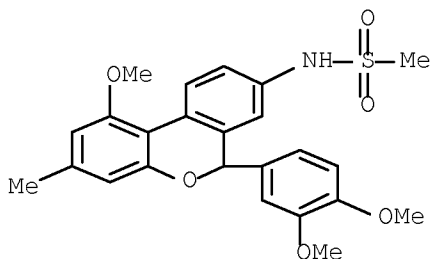
CAS Registry Number  
373626-60-9 CAPLUS

Chemical or Trade Name  
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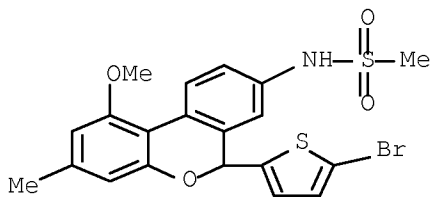
CAS Registry Number  
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Chemical or Trade Name  
Methanesulfonamide, N-[6-(3,4-dimethoxyphenyl)-1-methoxy-3-methyl-6H-dibenzo[b,d]pyran-8-yl]- (CA INDEX NAME)



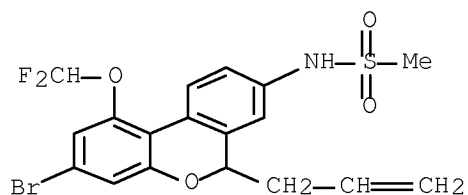
CAS Registry Number  
373626-62-1 CAPLUS

Chemical or Trade Name  
Methanesulfonamide, N-[6-(5-bromo-2-thienyl)-1-methoxy-3-methyl-6H-dibenzo[b,d]pyran-8-yl]- (CA INDEX NAME)



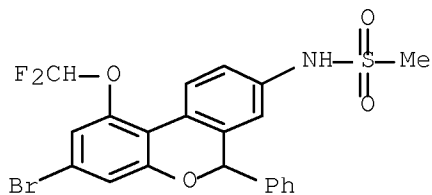
CAS Registry Number  
373626-63-2 CAPLUS

Chemical or Trade Name  
Methanesulfonamide, N-[3-bromo-1-(difluoromethoxy)-6-(2-propen-1-yl)-6H-dibenzo[b,d]pyran-8-yl]- (CA INDEX NAME)



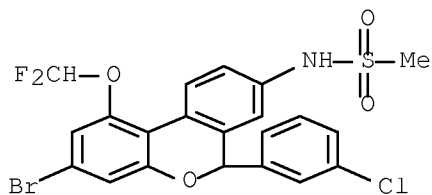
CAS Registry Number  
373626-64-3 CAPLUS

Chemical or Trade Name  
Methanesulfonamide, N-[3-bromo-1-(difluoromethoxy)-6-phenyl-6H-dibenzo[b,d]pyran-8-yl]- (CA INDEX NAME)



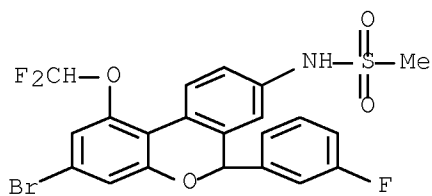
CAS Registry Number  
373626-65-4 CAPLUS

Chemical or Trade Name  
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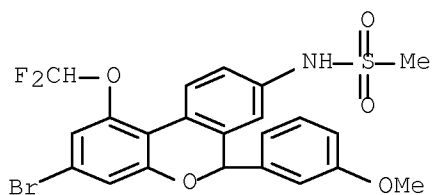
CAS Registry Number  
373626-66-5 CAPLUS

Chemical or Trade Name  
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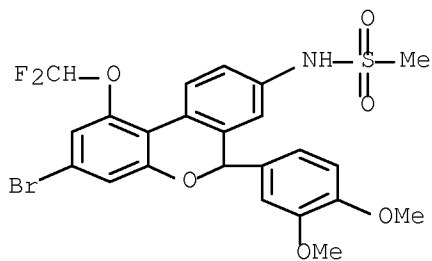
CAS Registry Number  
373626-67-6 CAPLUS

Chemical or Trade Name  
Methanesulfonamide, N-[3-bromo-1-(difluoromethoxy)-6-(3-methoxyphenyl)-6H-dibenzo[b,d]pyran-8-yl]- (CA INDEX NAME)



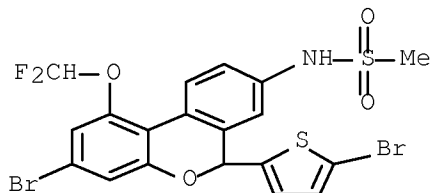
CAS Registry Number  
373626-68-7 CAPLUS

Chemical or Trade Name  
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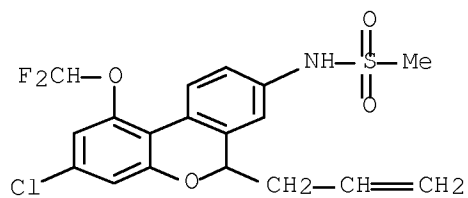
CAS Registry Number  
373626-69-8 CAPLUS

Chemical or Trade Name  
Methanesulfonamide, N-[3-bromo-6-(5-bromo-2-thienyl)-1-(difluoromethoxy)-6H-dibenzo[b,d]pyran-8-yl]- (CA INDEX NAME)



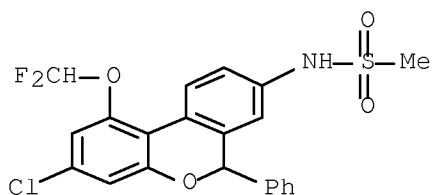
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Chemical or Trade Name  
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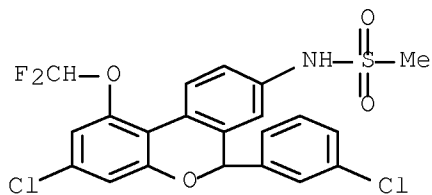
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Chemical or Trade Name  
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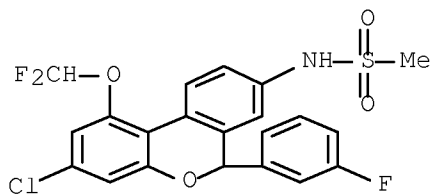
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Chemical or Trade Name  
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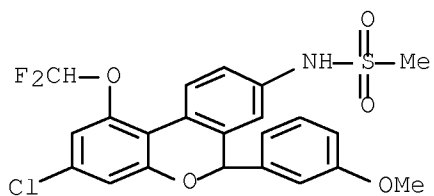
CAS Registry Number  
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Chemical or Trade Name  
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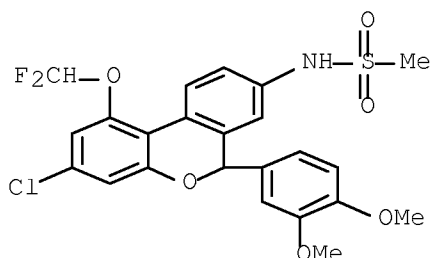
CAS Registry Number  
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Chemical or Trade Name  
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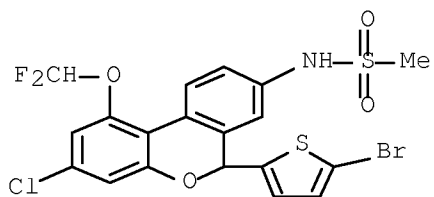
CAS Registry Number  
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Chemical or Trade Name  
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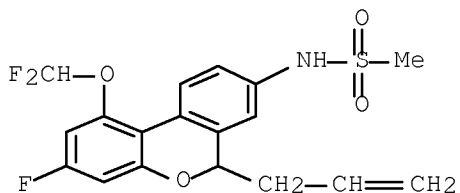
CAS Registry Number  
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Chemical or Trade Name  
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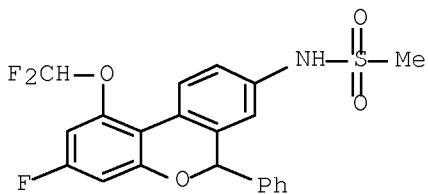
CAS Registry Number  
373626-77-8 CAPLUS

Chemical or Trade Name  
Methanesulfonamide, N-[1-(difluoromethoxy)-3-fluoro-6-(2-propen-1-yl)-6H-dibenzo[b,d]pyran-8-yl]- (CA INDEX NAME)



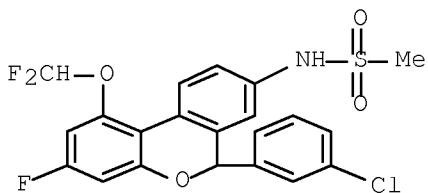
CAS Registry Number  
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Chemical or Trade Name  
Methanesulfonamide, N-[1-(difluoromethoxy)-3-fluoro-6-phenyl-6H-dibenzo[b,d]pyran-8-yl]- (CA INDEX NAME)



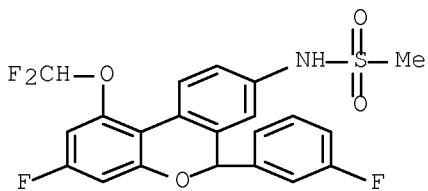
CAS Registry Number  
373626-79-0 CAPLUS

Chemical or Trade Name  
Methanesulfonamide, N-[6-(3-chlorophenyl)-1-(difluoromethoxy)-3-fluoro-6H-dibenzo[b,d]pyran-8-yl]- (CA INDEX NAME)



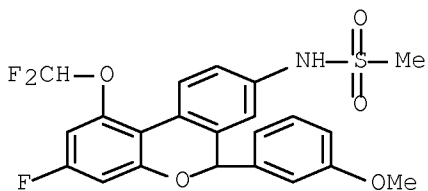
CAS Registry Number  
373626-80-3 CAPLUS

Chemical or Trade Name  
Methanesulfonamide, N-[1-(difluoromethoxy)-3-fluoro-6-(3-fluorophenyl)-6H-dibenzo[b,d]pyran-8-yl]- (CA INDEX NAME)



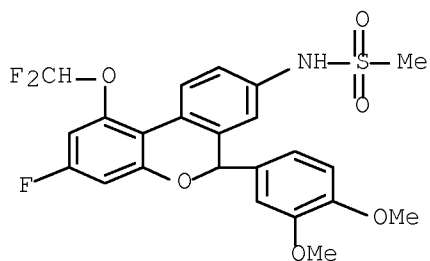
CAS Registry Number  
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Chemical or Trade Name  
Methanesulfonamide, N-[1-(difluoromethoxy)-3-fluoro-6-(3-methoxyphenyl)-6H-dibenzo[b,d]pyran-8-yl]- (CA INDEX NAME)



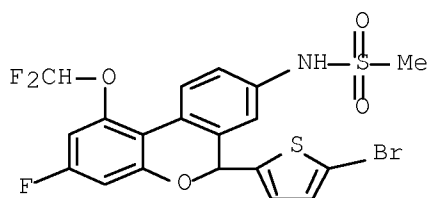
CAS Registry Number  
373626-82-5 CAPLUS

Chemical or Trade Name  
Methanesulfonamide, N-[1-(difluoromethoxy)-6-(3,4-dimethoxyphenyl)-3-fluoro-6H-dibenzo[b,d]pyran-8-yl]- (CA INDEX NAME)



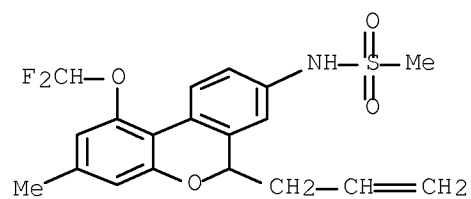
CAS Registry Number  
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Chemical or Trade Name  
Methanesulfonamide, N-[6-(5-bromo-2-thienyl)-1-(difluoromethoxy)-3-fluoro-6H-dibenzo[b,d]pyran-8-yl]- (CA INDEX NAME)



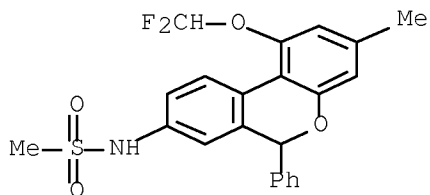
CAS Registry Number  
373626-84-7 CAPLUS

Chemical or Trade Name  
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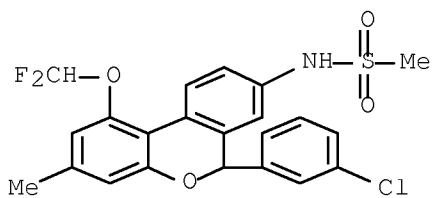
CAS Registry Number  
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Chemical or Trade Name  
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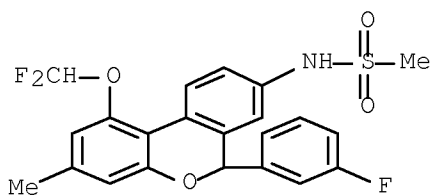
CAS Registry Number  
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Chemical or Trade Name  
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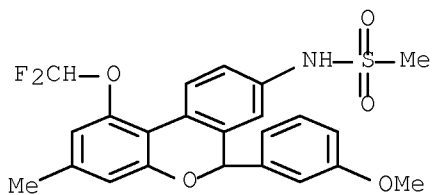
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Chemical or Trade Name  
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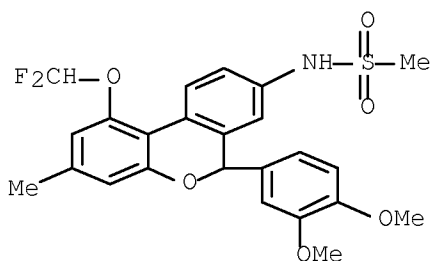
CAS Registry Number  
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Chemical or Trade Name  
Methanesulfonamide, N-[1-(difluoromethoxy)-6-(3-methoxyphenyl)-3-methyl-6H-dibenzo[b,d]pyran-8-yl]- (CA INDEX NAME)



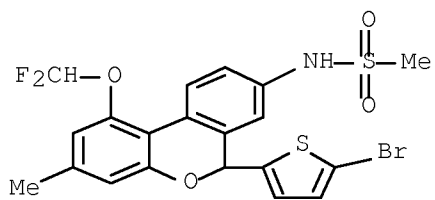
CAS Registry Number  
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Chemical or Trade Name  
Methanesulfonamide, N-[1-(difluoromethoxy)-6-(3,4-dimethoxyphenyl)-3-methyl-6H-dibenzo[b,d]pyran-8-yl]- (CA INDEX NAME)



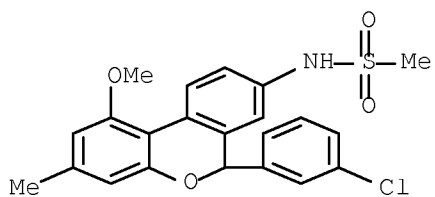
CAS Registry Number  
373626-90-5 CAPLUS

Chemical or Trade Name  
Methanesulfonamide, N-[6-(5-bromo-2-thienyl)-1-(difluoromethoxy)-3-methyl-6H-dibenzo[b,d]pyran-8-yl]- (CA INDEX NAME)



CAS Registry Number  
373626-91-6 CAPLUS

Chemical or Trade Name  
Methanesulfonamide, N-[6-(3-chlorophenyl)-1-methoxy-3-methyl-6H-dibenzo[b,d]pyran-8-yl]- (CA INDEX NAME)



OS.CITING REF COUNT: 6 THERE ARE 6 CAPLUS RECORDS THAT CITE THIS RECORD  
(8 CITINGS)

L8 ANSWER 13 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number  
2001:371552 CAPLUS [Full-text](#)  
Document Number  
134:357599

Title  
Solutions containing polyphenols for pharyngeal mucosa

Author/Inventor  
Ohashi, Takafumi; Sumida, Kenji

Patent Assignee/Corporate Source  
Taisho Pharmaceutical Co., Ltd., Japan

Source  
Jpn. Kokai Tokkyo Koho, 4 pp. CODEN: JKXXAF

Document Type  
Patent

Language  
Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001139465	A	20010522	JP 1999-320789	19991111

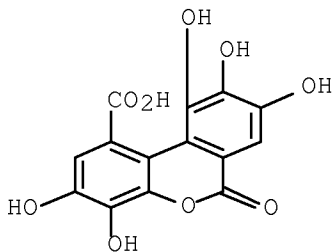
Abstract

This invention relates to a solution containing polyphenols, ethanol, and concentrated glycerin in a buffer to relieve the discomfort in pharyngeal mucosa. The polyphenols in the solution are stable and their unpleasant taste is well masked. A solution was formulated containing tannic acid 26, iodine 10, KI 20, concentrated glycerin 1032.9, peppermint oil 0.4, ethanol 255.7, and 0.01 N HCl 655.0 g.

Hit Structure

CAS Registry Number  
476-67-5 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-1-carboxylic acid, 3,4,8,9,10-pentahydroxy-6-oxo-  
(CA INDEX NAME)



L8 ANSWER 14 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number  
2001:72360 CAPLUS [Full-text](#)  
Document Number  
134:199302

Title  
Dibenzopyran-6-one derivatives, their liquid crystal compositions, and liquid crystal devices

Author/Inventor  
Shudo, Tatsuji; Inagaki, Junichi; Inoue, Hiromichi; Okabe, Eiji; Saito, Hideo

Patent Assignee/Corporate Source  
Chisso Corp., Japan

Source  
Jpn. Kokai Tokkyo Koho, 52 pp. CODEN: JKXXAF

Document Type  
Patent

Language  
Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001026587	A	20010130	JP 1999-197892	19990712
JP 4449105	B2	20100414		

Abstract

Dibenzopyran-6-one derivs. I (R1, R2 = C2-16 linear or branched alkyl with optional substitution of  $\geq 1$  methylene(s) with O, S, CH<sub>2</sub>CH, C<sub>3</sub>lpbond.C, CF<sub>2</sub>, CHF, but free of O-O bond, O-S bond, or OMe; X, Y = O, CO; X  $\neq$  Y; Z = single bond, OCH<sub>2</sub>, CH<sub>2</sub>O, SCH<sub>2</sub>, CH<sub>2</sub>S, C<sub>3</sub>lpbond.C, CH<sub>2</sub>CH, CH<sub>2</sub>CH<sub>2</sub>, CO<sub>2</sub>, OCO; P = single bond, (halo- and/or cyano-substituted) 1,4-phenylene, 1,4-cyclohexylene with its 1 or 2 methylene group(s) substituted with O or S, pyridine-2,5-diyl, pyrimidine-2,5-diyl, pyridazine-2,5-diyl, pyrazine-2,5-diyl, thiadiazole-2,5-diyl) are claimed. Liquid crystal compns. containing  $\geq 1$  I and liquid crystal devices (e.g. displays) comprising of the compns. are also claimed. Ferroelec. liquid crystal devices with high contrast are obtained.

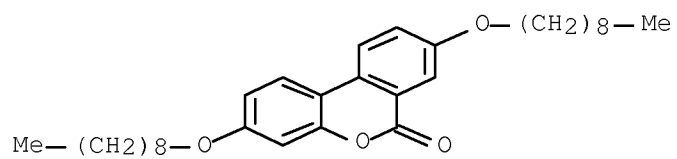
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CAS Registry Number  
321907-81-7 CAPLUS

Chemical or Trade Name  
Cyclohexanecarboxylic acid, 4-butyl-, 4-ethylphenyl ester, trans-, mixt.  
with 3,8-bis(nonyloxy)-6H-dibenzo[b,d]pyran-6-one, trans-4-butylphenyl  
4-propylcyclohexanecarboxylate, trans-4-ethylphenyl  
4-pentylcyclohexanecarboxylate, trans-4-ethylphenyl  
4-propylcyclohexanecarboxylate and trans-4-methylphenyl  
4-pentylcyclohexanecarboxylate (9CI) (CA INDEX NAME)

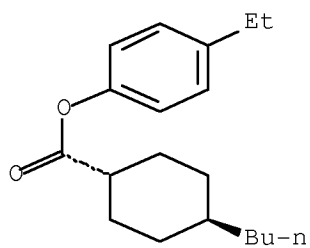
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CME C31 H44 O4



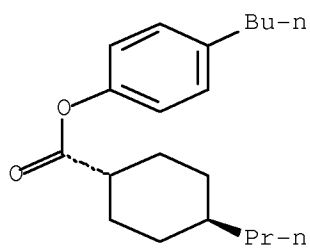
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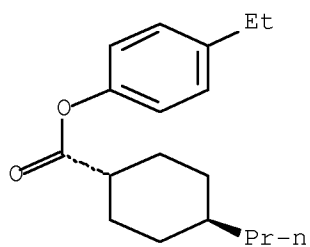
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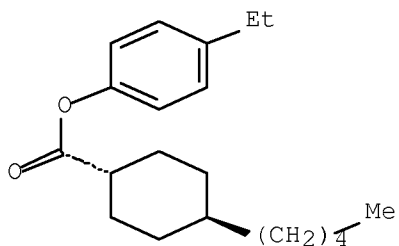
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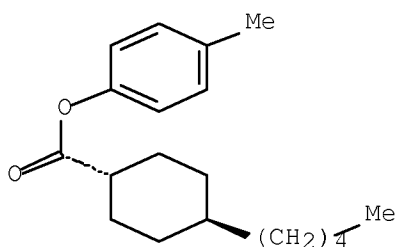
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CM 6

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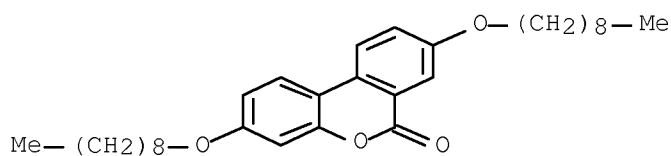


CAS Registry Number  
321907-82-8 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3,8-bis(nonyloxy)-, mixt. with  
2-[4-(decyloxy)phenyl]-5-octylpyrimidine,  
2-(4'-heptyl[1,1'-biphenyl]-4-yl)-5-octylpyrimidine,  
2-[4-(hexyloxy)phenyl]-5-octylpyrimidine,  
2-[4-(nonyloxy)phenyl]-5-octylpyrimidine,  
5-octyl-2-[4-(octyloxy)phenyl]pyrimidine and  
5-octyl-2-(4'-pentyl[1,1'-biphenyl]-4-yl)pyrimidine (9CI) (CA INDEX NAME)

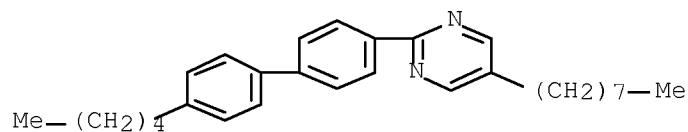
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CRN 321907-75-9  
CMF C31 H44 O4



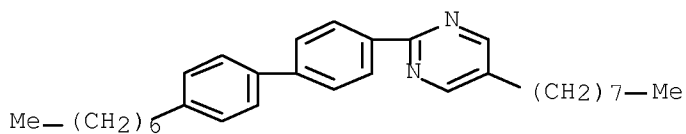
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CRN 118266-63-0  
CMF C29 H38 N2



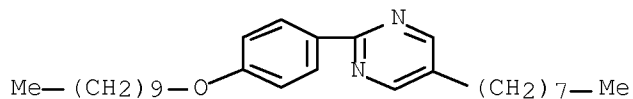
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CMF C31 H42 N2



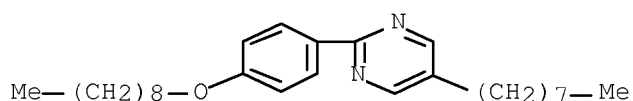
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CRN 57202-52-5  
CMF C28 H44 N2 O



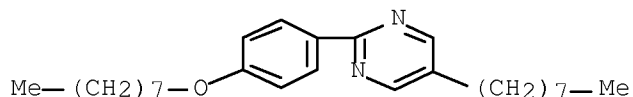
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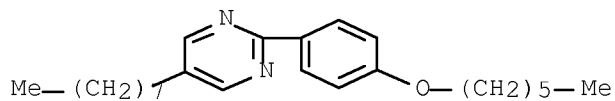
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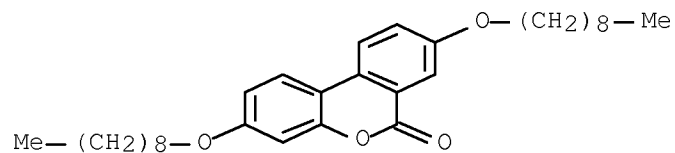
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CRN 57202-48-9  
CMF C24 H36 N2 O



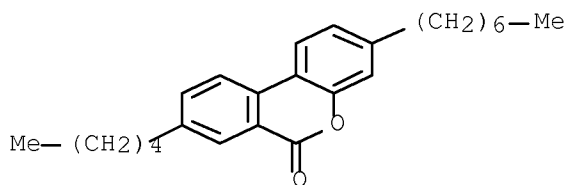
CAS Registry Number  
321907-75-9 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3,8-bis(nonyloxy)- (CA INDEX NAME)



CAS Registry Number  
321907-76-0 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3-heptyl-8-pentyl- (CA INDEX NAME)



.L8 ANSWER 15 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number  
2000:733014 CAPLUS [Full-text](#)

Document Number  
133:301107

Title  
Isolation of xanthine oxidase inhibitors from Lagerstroemia

Author/Inventor  
Unno, Tomonori; Sakane, Iwao; Tsunoda, Takami

Patent Assignee/Corporate Source  
Itoen K. K., Japan

Source  
Jpn. Kokai Tokkyo Koho, 7 pp. CODEN: JKXXAF

Document Type  
Patent

Language  
Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000290188	A	20001017	JP 1999-98011	19990405
JP 3574001	B2	20041006		
US 20020051825	A1	20020502	US 2001-13351	20011213
US 6589573	B2	20030708		
JP 2004123761	A	20040422	JP 2004-19819	20040128

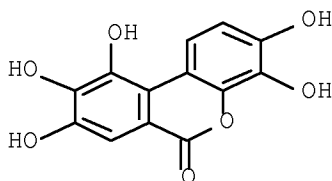
#### Abstract

This present invention relates to a method for extracting xanthine oxidase inhibitors from Lagerstroemia. The method includes (1) extracting L. speciosa using water, hot water, and/or organic solvents, (2) adsorbing the exts. on styrene-vinylbenzene type synthetic resins, (3) eluting the adsorbed components using organic solvents, such as CHCl<sub>3</sub>, hexane, EtOAc, and butanol, and (4) isolating ellagic acid and derivs. thereof by HPLC.

#### Hit Structure

CAS Registry Number  
91485-02-8 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3,4,8,9,10-pentahydroxy- (CA INDEX NAME)



OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD  
(2 CITINGS)

.L8 ANSWER 16 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number  
2000:657653 CAPLUS [Full-text](#)

Document Number  
134:53885

Title  
Dibenzo- $\alpha$ -pyrons in fruits of Trapa natans

Author/Inventor  
Shirataki, Yoshiaki; Yoshida, Sanae; Toda, Shizuo

Patent Assignee/Corporate Source  
Fac. Pharmaceutical Sci., Josai Univ., Sakado, 350-0295, Japan

Source  
Natural Medicines (Tokyo) (2000), 54(3), 160 CODEN: NMEDEO; ISSN: 1340-3443

Document Type  
Journal

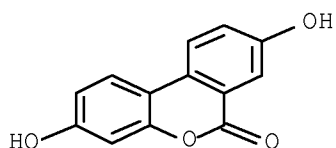
Language  
English

Abstract  
Three dibenzo- $\alpha$ -pyrons were isolated from the fruits of Trapa natans in addition to Me gallate and  $\beta$ -sitosterol.

#### Hit Structure

CAS Registry Number  
1143-70-0 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3,8-dihydroxy- (CA INDEX NAME)



OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD  
(3 CITINGS)

.L8 ANSWER 17 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number  
2000:621158 CAPLUS [Full-text](#)  
Document Number  
133:350356

Title  
Nondynamic and Dynamic Kinetic Resolution of Lactones with Stereogenic Centers and Axes: Stereoselective Total Synthesis of Herbertenediol and Mastigophorenes A and B

Author/Inventor  
Bringmann, Gerhard; Pabst, Thomas; Henschel, Petra; Kraus, Juergen; Peters, Karl; Peters, Eva-Maria; Rycroft, David S.; Connolly, Joseph D.

Patent Assignee/Corporate Source  
Institut fuer Organische Chemie, Universitaet Wuerzburg, Wuerzburg, D-97074, Germany

Source  
Journal of the American Chemical Society (2000 ), 122(38), 9127-9133 CODEN: JACSAT; ISSN: 0002-7863

Document Type  
Journal

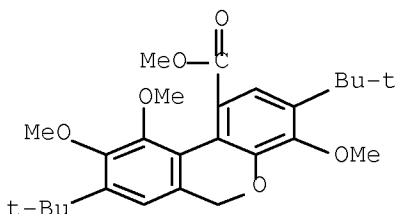
Language  
English

Abstract  
The stereoselective total synthesis of the sesquiterpene herbertenediol and of its naturally occurring dimers, mastigophorenes A [(P)-I] and B [(M)-isomer], is described. Following the "lactone concept", the configuration at the biaryl axis was atropo-divergently induced to be P or, optionally, M, by stereocontrolled reductive ring cleavage (diastereomeric ratio up to 97:3) of the configurationally unstable joint biaryl lactone precursor II using the oxazaborolidine-borane system, through dynamic kinetic resolution. Mechanistic considerations of the lactone coupling suggested interference by a methoxy group next to the halogen substituent and led to an improvement of the coupling yield from 39 to 87% to give the lactone III. As a new, likewise highly efficient variant of the lactone method, we report for the first time the now nondynamic-kinetic resolution of a structurally related, but centrochiral "aliphatic-aromatic" lactone, (rac)-IV. Its highly efficient (k<sub>rel</sub> > 300) enantiomer-differentiating Corey-Bakshi-Shibata reduction delivers the centrochiral building block (R,R)-IV in good chemical yield and with excellent stereochem. purity (enantiomeric excess > 99.9%; enrichment of the starting material). The new synthesis of natural herbertenediol confirms its absolute stereostructure as well as that of its dimers, mastigophorenes A and B.

#### Hit Structure

CAS Registry Number  
304859-81-2 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-1-carboxylic acid,  
3,8-bis(1,1-dimethylethyl)-4,9,10-trimethoxy-, methyl ester (CA INDEX  
NAME)



OS.CITING REF COUNT: 54 THERE ARE 54 CAPLUS RECORDS THAT CITE THIS  
RECORD (56 CITINGS)

.L8 ANSWER 18 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number  
2000:506105 CAPLUS [Full-text](#)  
Document Number  
133:120242

Title  
Preparation of 1,2-dihydroquinolines

Author/Inventor  
Bender, Reinhold H. W.; Edwards, James P.; Jones, Todd K.

Patent Assignee/Corporate Source  
American Home Products, USA; Ligand Pharmaceuticals Inc.

Source  
U.S., 10 pp. CODEN: USXXAM

Document Type  
Patent

Language  
English

#### Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6093825	A	20000725	US 1998-86004	19980527

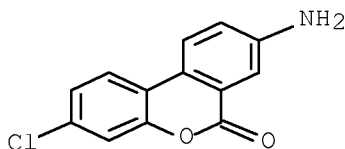
#### Abstract

The title method comprises preparation of quinolines I [R1R2 = (un)substituted CH:CH:CH or atoms to complete a polycyclic (hetero)aromatic ring system; R3,R4 = H, F, alkyl, alkoxy, etc.; R3R4 = alk(en)ylene] by treating (un)substituted PhNH2 etc. with a silylating agent followed by cyclocondensation with R3CH2COCH2R4 in the presence of a catalyst. Thus, 2-amino-6-fluoro-3,4-benzocoumarin was treated with MeC(NSiMe3)OSiMe3 and the product heated with acetone and I to give 88% 9-fluoro-1,2-dihydro-2,2,4-trimethyl-5-isocoumarino[3,4-f]quinoline. The process also succeeds as a 1-pot reaction.

#### Hit Structure

CAS Registry Number  
56825-81-1 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 8-amino-3-chloro- (CA INDEX NAME)



OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD  
(2 CITINGS)

.L8 ANSWER 19 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number

2000:443941 CAPLUS [Full-text](#)

Document Number

133:51438

Title

Crystal structure of 3,8-di-tert-butyl-4,9,10-trimethoxy-1-methylbenzo[b,d]pyran-6-thione, C<sub>6</sub>H(OCH<sub>3</sub>)<sub>2</sub>[C(CH<sub>3</sub>)<sub>3</sub>]CSO(C<sub>6</sub>H)(CH<sub>3</sub>)(OCH<sub>3</sub>)[C(CH<sub>3</sub>)<sub>3</sub>]

Author/Inventor

Peters, K.; Peters, E.-M.; Pabst, T.; Bringmann, G.

Patent Assignee/Corporate Source

Max-Planck-Institut für Festkörperforschung, Stuttgart, D-70506, Germany

Source

Zeitschrift fuer Kristallographie - New Crystal Structures (2000), 215(3), 399-400 CODEN: ZKNSFT; ISSN: 1433-7266

Document Type

Journal

Language

English

Abstract

The title compound is monoclinic, space group P2<sub>1</sub>/c, a 13.704(1), b 10.530(1), c 16.248(1) Å, β 92.37(1)°, Z = 4, R<sub>gt</sub>(F) = 0.062, wR(F) = 0.058, T = 293 K. Atomic coordinates are given.

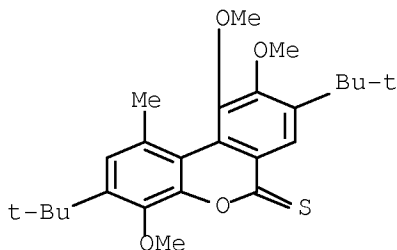
Hit Structure

CAS Registry Number

275384-71-9 CAPLUS

Chemical or Trade Name

6H-Dibenzo[b,d]pyran-6-thione, 3,8-bis(1,1-dimethylethyl)-4,9,10-trimethoxy-1-methyl- (CA INDEX NAME)



.L8 ANSWER 20 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number

2000:249798 CAPLUS [Full-text](#)

Document Number

132:270100

Title

Antiseptic compositions containing polyphenols for pharynx mucosa

Author/Inventor

Okudaira, Ichiro; Kakuta, Kenji

Patent Assignee/Corporate Source

Taisho Pharmaceutical Co., Ltd., Japan

Source

Jpn. Kokai Tokkyo Koho, 5 pp. CODEN: JKXXAF

Document Type

Patent

Language

Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000109428	A	20000418	JP 1998-283060	19981005

Abstract

Comps., which relieve discomfort of throat such as congestion, swelling, etc., contain polyphenols and disinfectants. The polyphenols may be tannic acid, gallic acid, its derivs., galloylgalic acid, luteic acid, ellagic acid, catechin, epigallocatechin, leucocyanidins, mollisacacidin, etc., and the disinfectants may be chlorhexidine, decalinium, cetylpyridinium, etc. Tannic acid 2000, chlorhexidine hydrochloride 15, lysozyme chloride 30, lactose 175, low-substituted hydroxypropyl cellulose 150, Mg stearate 15, and hydrogenated castor oil 15 g were mixed and compressed to give lozenges (300 mg/lozenge). Efficacy of the lozenges was also examined

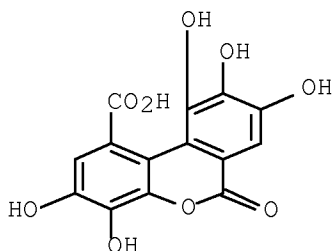
Hit Structure

CAS Registry Number

476-67-5 CAPLUS

Chemical or Trade Name

6H-Dibenzo[b,d]pyran-1-carboxylic acid, 3,4,8,9,10-pentahydroxy-6-oxo- (CA INDEX NAME)



L8 ANSWER 21 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number

2000:190760 CAPLUS [Full-text](#)

Document Number

132:222437

Title

Method for the radical alkylation of arenes

Author/Inventor

Murphy, John; Graham, Stephen

Patent Assignee/Corporate Source

Merck Patent G.m.b.H., Germany

Source

Eur. Pat. Appl., 27 pp. CODEN: EPXXDW

Document Type

Patent

Language

English

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 987235	A1	20000322	EP 1999-116091	19990817
EP 987235	B1	20030312		

Abstract

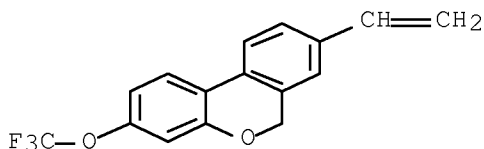
The title process comprises a method for the conversion of alkenes or arenes with iodoalkenes, aryl iodides or arenediazonium salts in the presence of hypophosphorous acid or its derivs. and a radical initiator. Thus, O-allyl-3,5-diodosalicylic acid was refluxed with H<sub>3</sub>PO<sub>2</sub>/AIBN/H<sub>2</sub>O to give 3-methyl-2,3-dihydrobenzofuran-7-carboxylic acid.

Hit Structure

CAS Registry Number  
1100517-35-8 CAPLUS

Chemical or Trade Name

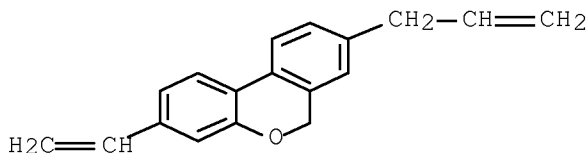
6H-Dibenzo[b,d]pyran, 8-ethenyl-3-(trifluoromethoxy)- (CA INDEX NAME)



CAS Registry Number  
1100517-38-1 CAPLUS

Chemical or Trade Name

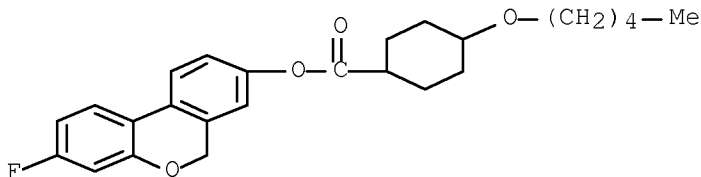
6H-Dibenzo[b,d]pyran, 3-ethenyl-8-(2-propen-1-yl)- (CA INDEX NAME)



CAS Registry Number  
1100517-43-8 CAPLUS

Chemical or Trade Name

Cyclohexanecarboxylic acid, 4-(pentyloxy)-, 3-fluoro-6H-dibenzo[b,d]pyran-8-yl ester (CA INDEX NAME)



L8 ANSWER 22 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number

2000:124139 CAPLUS [Full-text](#)

Document Number

132:260391

Title

Hyaluronidase inhibitory active 6H-dibenzo[b,d]pyran-6-ones from the feces of Trogopterus xanthipes

Author/Inventor

Jeong, Sei-Joon; Kim, Na-Young; Kim, Do-Hoon; Kang, Tai-Hyun; Ahn, Nyeon-Hyung; Miyamoto, T.; Higuchi, R.; Kim, Youn-Chul

Patent Assignee/Corporate Source

College Pharmacy, Wonkwang Univ., Iksan, 570749, S. Korea

Source

Planta Medica (2000), 66(1), 76-77 CODEN: PLMEAA; ISSN: 0032-0943

Document Type

Journal

Language

English

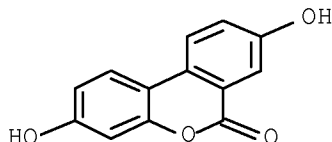
Abstract

In an attempt to isolate hyaluronidase inhibitors for the development of antiallergic agents from Korean crude drugs, a bioassay-guided fractionation of the MeOH extract of Pteropi feces (the feces of Trogopterus xanthipes) provided 3 hyaluronidase inhibitory active 6H-dibenzo[b,d]-pyran-6-ones, together with a new compound, 3,8,10-tri-hydroxy-6H-dibenzo[b,d]pyran-6-one. Their structures were established on the basis of the spectroscopic methods. Three dibenzopyranone compds. showed hyaluronidase inhibitory activities with IC<sub>50</sub> of 1.33, 1.07, and 2.33 mM, resp., compared to 1.78 mM for disodium cromoglycate, an antiallergic agent, as a pos. control.

Hit Structure

CAS Registry Number  
1143-70-0 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3,8-dihydroxy- (CA INDEX NAME)



OS.CITING REF COUNT: 15 THERE ARE 15 CAPLUS RECORDS THAT CITE THIS RECORD (15 CITINGS)

L8 ANSWER 23 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number

2000:62091 CAPLUS [Full-text](#)

Document Number

132:207676

Title

Synthesis of novel polyfunctionally substituted coumarins as antibacterial agents

Author/Inventor

El-Gaby, Mohamed S. A.; Ghorab, Moustafa M.; Abdel-Gawad, Soad M.

Patent Assignee/Corporate Source

Department of Chemistry, Faculty of Science, Al-Azhar University at Assiut, Assiut, 71524, Egypt

Source

Acta Pharmaceutica (Zagreb) (1999), 49(4), 257-266 CODEN: ACPHEE; ISSN: 1330-0075

Document Type

Journal

Language

English

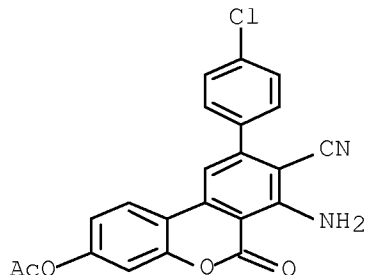
Abstract

Fusion of 2,4-dihydroxyacetophenone and Et cyanoacetate furnished coumarin (I) (R<sub>1</sub> = H, R<sub>2</sub> = Me). I (R<sub>1</sub> = H, R<sub>2</sub> = Me) on refluxing with acetic anhydride or propionic anhydride yielded the corresponding acetoxy- and propionyloxy- coumarins resp. I (R<sub>1</sub> = H, R<sub>2</sub> = Me) and I (R<sub>1</sub> = Ac, R<sub>2</sub> = Me) reacted with elemental sulfur in ethanol/piperidine to yield thieno[3,4-c]coumarins (II) (R<sub>1</sub> = H, Ac). 4-Styrylcoumarins I (R<sub>1</sub> = Ac, R<sub>2</sub> = CH=CHC<sub>6</sub>H<sub>4</sub>Cl-p, CH=CHC<sub>6</sub>H<sub>4</sub>F-p) were obtained through interaction of I (R<sub>1</sub> = Ac, R<sub>2</sub> = Me) with aromatic aldehydes. When coumarin I (R<sub>1</sub> = Ac, R<sub>2</sub> = Me) was refluxed with arylidenemalononitriles in ethanol/piperidine, benzo[c]coumarins (e.g. III) (Ar = C<sub>6</sub>H<sub>4</sub>Cl-p) were obtained. Compound III (Ar = C<sub>6</sub>H<sub>4</sub>Cl-p) reacted with acetic anhydride, propionic anhydride, Ph isothiocyanate and formamide to yield the corresponding coumarins (IV), (V), (VI) and (VII), resp. Some of these compds. were screened in vitro for their antibacterial activities.

Hit Structure

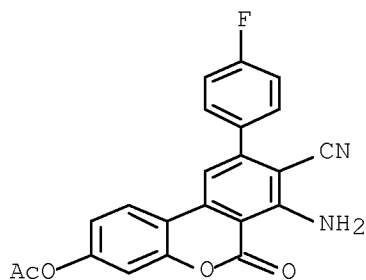
CAS Registry Number  
260793-07-5 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-8-carbonitrile,  
3-(acetyloxy)-7-amino-9-(4-chlorophenyl)-6-oxo- (CA INDEX NAME)



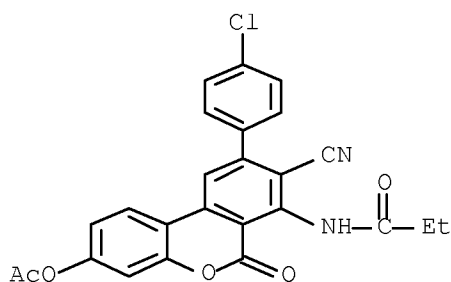
CAS Registry Number  
260793-19-9 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-8-carbonitrile,  
3-(acetyloxy)-7-amino-9-(4-fluorophenyl)-6-oxo- (CA INDEX NAME)



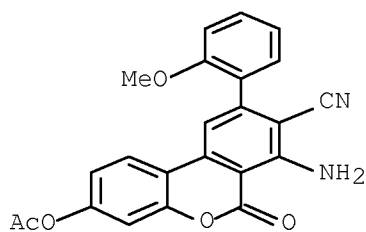
CAS Registry Number  
260793-09-7 CAPLUS

Chemical or Trade Name  
Propanamide, N-[3-(acetyloxy)-9-(4-chlorophenyl)-8-cyano-6-oxo-6H-dibenzo[b,d]pyran-7-yl]- (CA INDEX NAME)



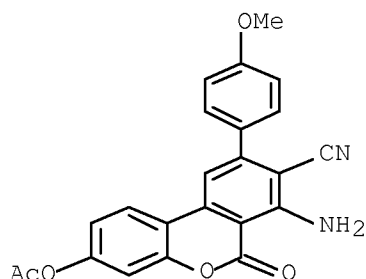
CAS Registry Number  
260793-20-2 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-8-carbonitrile, 3-(acetyloxy)-7-amino-9-(2-methoxyphenyl)-6-oxo- (CA INDEX NAME)



CAS Registry Number  
260793-21-3 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-8-carbonitrile, 3-(acetyloxy)-7-amino-9-(4-methoxyphenyl)-6-oxo- (CA INDEX NAME)



OS.CITING REF COUNT: 6 THERE ARE 6 CAPLUS RECORDS THAT CITE THIS RECORD  
(6 CITINGS)

.L8 ANSWER 24 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number

1999:779637 CAPLUS ~~Fulltext~~

Document Number

132:191363

Title

3-Hydroxyanthranilic acid-derived compounds formed through electrochemical oxidation

Author/Inventor

Iwahashi, H.

Patent Assignee/Corporate Source

Department of Chemistry, Wakayama Medical College, Wakayama, Japan

Source

Journal of Chromatography, B: Biomedical Sciences and Applications (1999), 736(1 + 2), 237-245 CODEN: JCBEP; ISSN: 0378-4347

Document Type

Journal

Language

English

Abstract

3-Hydroxyanthranilic acid (3-HAA)-derived oxidation products were analyzed using high-performance liquid chromatog. with an electrochem. reactor and diode array detection and high-performance liquid chromatog. with an electrochem. reactor and UV detection coupled with mass spectrometry. In addition to 3-HAA dimers such as cinnabarinic acid (CA), 6-amino-3-[(2-carboxy-6-hydroxyphenyl)amino]-2,5-dioxo-1,3-cyclohexadiene-1-carboxylic acid and 4,7-diamino-8-hydroxy-6H-dibenzo[a,d]pyran-6-one-3-carboxylic acid, a 3-HAA trimer and a 3-HAA tetramer were also detected and identified based on their electrospray ionization mass spectra and their UV-visible spectra. These five oxidation products were also detected on the elution profiles of high-performance liquid chromatog.-diode array detection analyses for the reaction mixts. of the auto-oxidation of 3-HAA, of 3-HAA with potassium ferricyanide, of 3-HAA with horseradish peroxidase and hydrogen peroxide, and of 3-HAA with superoxide dismutase (SOD). 4,7-Diamino-8-hydroxy-6H-dibenzo[a,d]pyran-6-one-3-carboxylic acid was predominant in the auto-oxidation, in the reaction of 3-HAA with horseradish peroxidase and hydrogen peroxide, and in the electrochem. oxidation of 3-HAA at an applied potential of 0.0 V. On the other hand, CA, the 3-HAA trimer and the 3-HAA tetramer were predominant in the reaction of 3-HAA with K<sub>3</sub>[Fe(CN)<sub>6</sub>] and in the electrochem. oxidation of 3-HAA at an applied potential of 1.0 V.

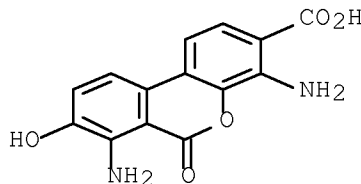
Hit Structure

CAS Registry Number

129085-80-9 CAPLUS

Chemical or Trade Name

6H-Dibenzo[b,d]pyran-3-carboxylic acid, 4,7-diamino-8-hydroxy-6-oxo- (CA INDEX NAME)



OS.CITING REF COUNT: 10 THERE ARE 10 CAPLUS RECORDS THAT CITE THIS  
RECORD (10 CITINGS)

L8 ANSWER 25 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number  
1999:28085 CAPLUS [Full-text](#)  
Document Number  
130:99961

Title  
Multicomponent enzyme system for treating wastewaters especially from processing wood, pulp, and paper and for organic syntheses and coal liquefaction.

Author/Inventor  
Call, Hans-Peter  
Patent Assignee/Corporate Source  
Call, Krimhild, Germany

Source  
Ger. Offen., 54 pp. CODEN: GWXXBX

Document Type  
Patent

Language  
German  
Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19726241	A1	19981224	DE 1997-19726241	19970620
WO 9901607	A2	19990114	WO 1998-DE1694	19980619
WO 9901607	A3	19990624		

#### Abstract

The multicomponent system containing oxidoreductases comprises (a)  $\geq 1$  oxidation catalyst; (b)  $\geq 1$  oxidant; (c) a mediator selected from among hydroxyl amines, hydroxyl amine derivs., hydroxamic acids, hydroxamic acid derivs. or aliphatic, aromatic, cycloaliph., heterocyclic, or aromatic compds. having at least one N-hydroxy, oxime, N-ox-, or N,N'-dioxy function; (d)  $\geq 1$  mediator chosen from amides such as hydrazides or 1,2,4-triazolidine-3,5-dione; (e)  $\geq 1$  mediator chosen from imides such as hydantoin; (f)  $\geq 1$  mediator chosen from oxocarbons; (g)  $\geq 1$  co-mediator chosen from arylsubstituted alcs., carbonyl compds., aliphatic ethers, phenol ether, and/or olefins; (h)  $\geq 1$  co-mediator chosen from among the above-mentioned mediators and including radical anions; and (i) a small amount of a free amine of one of the mediators.

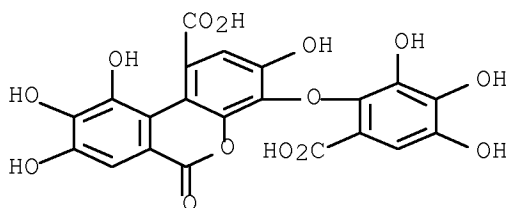
#### Hit Structure

CAS Registry Number  
104320-85-6 CAPLUS

Chemical or Trade Name  
D-glucose, cyclic 4,6-[(2S,2'S)-2,2'-(5,10-dihydro-2,3,7,8-tetrahydroxy-5,10-dioxo[1]benzopyrano[5,4,3-cde][1]benzopyran-1,6-diyl)bis(3,4,5-trihydroxybenzoate)], cyclic 2,3-ester with  
4-(6-carboxy-2,3,4-trihydroxyphenoxy)-3,8,9,10-tetrahydroxy-6-oxo-6H-dibenzo[b,d]pyran-1-carboxylic acid (9CI) (CA INDEX NAME)

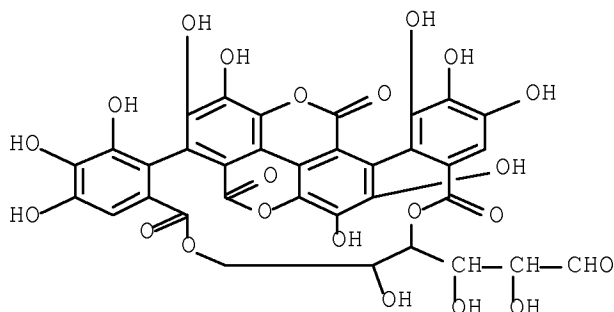
CM  
1

CRN 104243-50-7  
CMF C21 H12 O14



CM  
2

CRN 65995-64-4  
CMF C34 H22 O22



OS.CITING REF COUNT: 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD  
(5 CITINGS)

L8 ANSWER 26 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number  
1998:636367 CAPLUS [Full-text](#)  
Document Number  
130:20308

Title  
Biodistribution of, antimutagenic efficacies in Salmonella typhimurium of, and inhibition of P450 activities by ellagic acid and one analog

Author/Inventor  
Castonguay, Andre; Boukharta, Mohamed; Teel, Robert

Patent Assignee/Corporate Source  
Laboratory of Cancer Etiology and Chemoprevention Faculty of Pharmacy, Laval University, Quebec, G1K 7P4, Can.

Source  
Chemical Research in Toxicology (1998), 11(11), 1258-1264 CODEN: CRTOEC; ISSN: 0893-228X

Document Type  
Journal

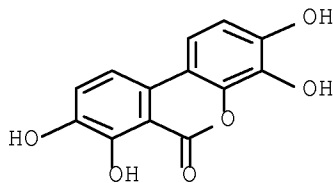
Language  
English

**Abstract**  
Ellagic acid (EA) is generated by hydrolysis of ellagitannins present in fruit berries and edible nuts and grapes. Large doses of EA prevent lung tumorigenesis induced by the tobacco carcinogen 4-(methylnitrosamino)-1-(3-pyridyl)-1-butanone (NNK) in A/J mice. The authors documented the efficacies of the EA structural analog (3,4,7,8-tetrahydroxy-6H-benzo[b,d]pyran-6-one) (analog 1) to inhibit specific P 450 activities, pulmonary metabolism of 4-(methylnitrosamino)-1-(3-pyridyl)-1-butanone (NNK) in A/J mice, and NNK-induced mutations in S. typhimurium. Mouse lung microsomes metabolized benzyloxyresorufin, a marker of cytochrome P 450 2B1 activity, more extensively than methoxyresorufin or ethoxyresorufin. The EA analog was more effective than EA in inhibiting dealkylation of the 3 alkoxyresorufins, suggesting that it is a nonspecific inhibitor of P450s. Mouse lung microsomes hydroxylate testosterone in the 7 $\alpha$  and 6 $\beta$  positions, suggesting contributions of P 450 2A1 and P 450 3A2 isoenzymes, resp. Inhibition of both pathways was more effective with the EA analog than with EA. Mouse lung explants metabolized NNK by  $\alpha$ -C hydroxylation (activation) and pyridine N-oxidation (deactivation). Both pathways were inhibited when 100  $\mu$ M EA was added to the culture medium. The EA analog was a better inhibitor of the activation of NNK to electrophilic species than EA. Mouse lung microsomes activate NNK to intermediates mutagenic to S. typhimurium. Inhibition of NNK mutagenicity by EA or the EA analog was 20 or 65%, resp. The distribution of the EA analog in lung and liver was determined following gavage with 1.7 mmol of the EA analog. In the lung, a maximal level of EA analog corresponding to 105 nmol was observed 30 min after administration of the analog. The level in liver tissues was 4-fold lower than in the lung. These results demonstrated that the EA analog is more effective than EA in inhibiting the pulmonary activation of NNK and suggest that the EA analog could be effective in preventing lung tumorigenesis.

**Hit Structure**

CAS Registry Number  
131096-94-7 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3,4,7,8-tetrahydroxy- (CA INDEX NAME)



OS.CITING REF COUNT: 11 THERE ARE 11 CAPLUS RECORDS THAT CITE THIS RECORD (11 CITINGS)

, L8 ANSWER 27 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number  
1998:586271 CAPLUS [Full-text](#)

Document Number  
129:223347

Title  
Liquid-crystal compound with high negative dielectric anisotropy, its composition, and display device using it

Author/Inventor  
Yano, Hitoshi; Dems  
Patent Assignee/Corporate Source  
Chisso Corp., Japan

Source  
Jpn. Kokai Tokkyo Koho, 29 pp. CODEN: JKXXAF

Document Type  
Patent

Language  
Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10236992	A2	19980908JP	1997-57045 19970225	

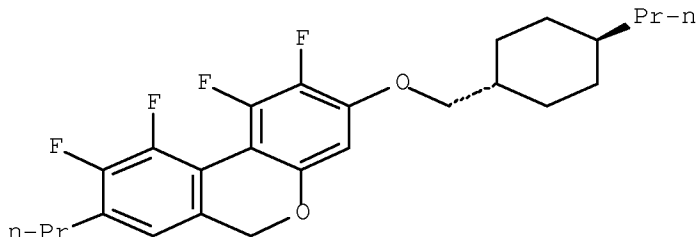
**Abstract**

The title compound contains structure I [G = C1-6 alkylene, O, S, Se, imino, silylene, SO; H atoms in imino and silylene may be substituted by C1-10 alkyl;  $\geq 1$  methylene group in the alkylene may be substituted by O, S, Se, N, C, ipbond, C, vinylene, or (substituted) silylene; atoms in the compound may be substituted by isotope]. The liquid-crystal composition containing  $\geq 1$  of the above compound and composed of  $\geq 2$  components and the display device using the composition are also claimed. The compound has low viscosity and controlled optical anisotropy.

**Hit Structure**

CAS Registry Number  
212502-55-1 CAPLUS

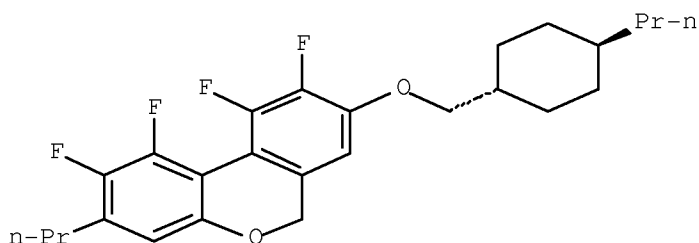
Chemical or Trade Name  
6H-Dibenzo[b,d]pyran, 1,2,9,10-tetrafluoro-8-propyl-3-[(trans-4-propylecyclohexyl)methoxy]- (CA INDEX NAME)



CAS Registry Number  
212502-56-2 CAPLUS

Chemical or Trade Name

6H-Dibenzo[b,d]pyran, 1,2,9,10-tetrafluoro-3-propyl-8-[(trans-4-propylcyclohexyl)methoxy]- (CA INDEX NAME)



.L8 ANSWER 28 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number  
1998:103883 CAPLUS [Full text](#)

Document Number  
128:217513

Title  
Novel concepts in directed biaryl synthesis. 63. Astropo-Enantioselective synthesis of a simplified analog of mastigophorenes A and B

Author/Inventor  
Bringmann, Gerhard; Pabst, Thomas Busemann, Stefan; Peters, Karl; Peters, Eva-Maria  
Patent Assignee/Corporate Source  
Institut für Organische Chemie, universität Würzburg, Würzburg, D-97074, Germany

Source  
Tetrahedron (1998), 54(8), 1425-1438 CODEN: TETRAB; ISSN: 0040-4020

Document Type  
Journal

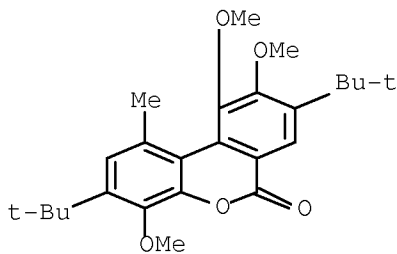
Language  
English

Abstract  
A first approach to the atroposelective total synthesis of mastigophorenes is described, the directed preparation of a structurally slightly modified analog of mastigophorenes A and B, with a tert-Bu instead of a substituted, chiral cyclopentyl residue. Its (partially protected) monomeric half is dimerized by oxidative (phenolic) coupling to give the corresponding biphenyl in a racemic form, or atropo-enantioselectively via the corresponding biaryl lactone, to give the M- or, optionally, the P-enantiomeric form, by stereoselective ring opening and subsequent standard transformations.

Hit Structure

CAS Registry Number  
203984-69-4 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3,8-bis(1,1-dimethylethyl)-4,9,10-trimethoxy-1-methyl- (CA INDEX NAME)



OS.CITING REF COUNT: 37 THERE ARE 37 CAPLUS RECORDS THAT CITE THIS RECORD (39 CITINGS)

.L8 ANSWER 29 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number

1998:102937 CAPLUS [Full-text](#)

Document Number

128:196717

Title

Method for producing blood-compatible materials by covalent surface coating of synthetic polymers with water-soluble natural or modified oligo- and polysaccharides

Author/Inventor

Baumann, Hanno Lutz; Huppertz, Bernd Holger

Patent Assignee/Corporate Source

Baumann, Hanno Lutz, Germany; Huppertz, Bernd Holger

Source

Ger. Offen., 16 pp. CODEN: GWXXBX

Document Type

Patent

Language

German

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19630879	A1	19980205	DE 1996-19630879	19960731

Abstract

Polymer implants and other plastic devices which come in contact with blood are rendered blood compatible by covalently immobilizing endothelial cell surface heparan sulfate (ES-HS) on the polymer surface. ES-HS-coated surfaces show no platelet adhesion and no affinity for platelet-aggregating or platelet adhesion-promoting proteins, as shown by expts. in which 50 mL citrated blood was cycled through a loop of ES-HS-coated silicone tubing for 10 min and the loss of platelets from the blood was measured.

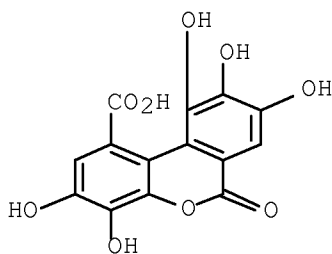
Hit Structure

CAS Registry Number

476-67-5 CAPLUS

Chemical or Trade Name

6H-Dibenzo[b,d]pyran-1-carboxylic acid, 3,4,8,9,10-pentahydroxy-6-oxo-  
(CA INDEX NAME)



OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD  
(3 CITINGS)

.L8 ANSWER 30 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number

1998:48716 CAPLUS [Full-text](#)

Document Number

128:188303

Title

DNA gyrase inhibitory activity of ellagic acid derivatives

Author/Inventor

Weidner-Wells, Michele A.; Altom, Jason; Fernandez, Jeffrey; Fraga-Spano, Stephanie A.; Hilliard, Jamease; Ohemeng, Kwasi; Barrett, John F.

Patent Assignee/Corporate Source

Drug Discovery, R.W. Johnson Pharmaceutical Research Institute, Raritan, NJ, 08869, USA

Source

Bioorganic & Medicinal Chemistry Letters (1998 ), 8(1), 97-100 CODEN: BMCLE8; ISSN: 0960-894X

Document Type

Journal

Language

English

Abstract

Ellagic acid was found to inhibit Escherichia coli DNA gyrase supercoiling with approx. the same potency as nalidixic acid. Tricyclic analogs of ellagic acid, which vary in the number and position of the hydroxy groups as well as their replacement with halogens, have been synthesized. The biol. activity of these analogs is discussed.

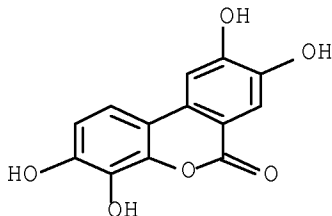
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CAS Registry Number

131096-98-1 CAPLUS

Chemical or Trade Name

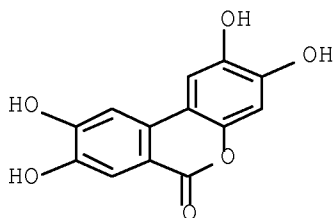
6H-Dibenzo[b,d]pyran-6-one, 3,4,8,9-tetrahydroxy- (CA INDEX NAME)



CAS Registry Number

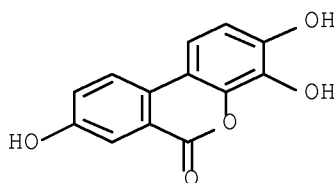
146776-30-9 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 2,3,8,9-tetrahydroxy- (CA INDEX NAME)



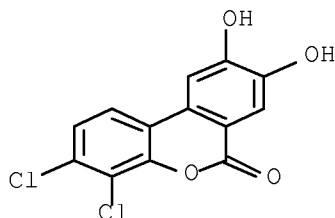
CAS Registry Number  
203631-64-5 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3,4,8-trihydroxy- (CA INDEX NAME)



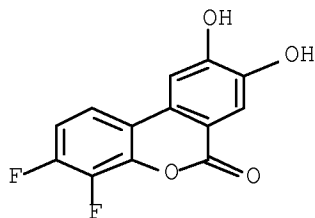
CAS Registry Number  
203631-67-8 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3,4-dichloro-8,9-dihydroxy- (CA INDEX NAME)



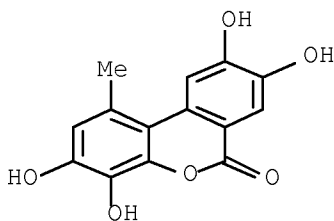
CAS Registry Number  
203631-68-9 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3,4-difluoro-8,9-dihydroxy- (CA INDEX NAME)



CAS Registry Number  
203631-70-3 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3,4,8,9-tetrahydroxy-1-methyl- (CA INDEX NAME)



OS.CITING REF COUNT: 7 THERE ARE 7 CAPLUS RECORDS THAT CITE THIS RECORD  
(7 CITINGS)

.L8 ANSWER 31 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number

1998:45156 CAPLUS [Full-text](#)

Document Number

128:97309

Title

5-Aryl-1,2-dihydro-5H-chromeno[3,4-f]quinolines as Potent, Orally Active, Nonsteroidal Progesterone Receptor Agonists: The Effect of D-Ring Substituents

Author/Inventor

Edwards, James P.; West, Sarah J.; Marschke, Keith B.; Mais, Dale E.; Gottardis, Marco; Jones, Todd K.

Patent Assignee/Corporate Source

Departments of Medicinal Chemistry New Leads Discovery and Endocrine Research, Ligand Pharmaceuticals Inc., San Diego, CA, 92121, USA

Source

Journal of Medicinal Chemistry (1998), 41(3), 303-310 CODEN: JMCMAR; ISSN: 0022-2623

Document Type

Journal

Language

English

Abstract

Several 5-(4-chlorophenyl)-1,2-dihydro-5H-chromeno[3,4-f]quinolines were prepared to determine the effects of substitution at C(8) and C(9) on the progestational activity of this pharmacophore. In combination with a halogen (F or Cl) at C(9), replacement of the C(5) aryl group with variously substituted aryl groups resulted in optimization of the progestational activity, affording compds. with in vitro activity greater than that of progesterone as measured by a co-transfection assay using human progesterone receptor subtype-B (hPR-B). Binding affinities (K<sub>i</sub>) to hPR-A were subnanomolar in many cases. These in vitro effects were verified in vivo using a rodent model. LG120794, 9-chloro-5-(4-chlorophenyl)-1,2-dihydro-2,2,4-trimethyl-5H-chromeno[3,4-f]quinoline was more potent than medroxyprogesterone acetate at counter-poising the effects of estradiol benzoate in the uterine weight wet assay using immature rats.

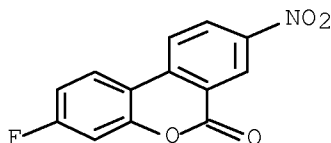
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CAS Registry Number

179898-13-6 CAPLUS

Chemical or Trade Name

6H-Dibenzo[b,d]pyran-6-one, 3-fluoro-8-nitro- (CA INDEX NAME)



OS.CITING REF COUNT: 47 THERE ARE 47 CAPLUS RECORDS THAT CITE THIS RECORD (48 CITINGS)

.L8 ANSWER 32 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number

1998:8172 CAPLUS [Full-text](#)

Document Number

128:75320

Title

Preparation of quinoline derivatives and analogs as steroid receptor modulator compounds and method of progesterone receptor therapy

Author/Inventor

Jones, Todd K.; Goldman, Mark E.; Pooley, Charlotte Lf; Winn, David T.; Edwards, James P.; West, Sarah J.; Tegley, Christopher M.; Zhi, Lin; Hamann, Lawrence G.; Farmer, Luc J.; Davis, Robert L.

Patent Assignee/Corporate Source

Ligand Pharmaceuticals Inc., USA

Source

U.S., 125 pp., Cont.-in-part of U.S. Ser. No. 363,529, abandoned. CODEN: USXXAM

Document Type

Patent

Language

English

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5696133	A	19971209	US 1995-465556	19950605
CA 2208347	A1	19960627	CA 1995-2208347	19951213
WO 9619458	A2	19960627	WO 1995-US16096	19951213
WO 9619458	A3	19961212		
AU 9645977	A	19960710	AU 1996-45977	19951213
AU 717251	B2	20000323		
EP 800519	A1	19971015	EP 1995-944089	19951213
EP 800519	B1	20031022		
CN 1175247	A	19980304	CN 1995-197702	19951213

CN 1172917	C	20041027		
BR 9510486	A	19980602	BR 1995-10486	19951213
JP 10510840	T	19981020	JP 1996-519861	19951213
HU 78117	A2	19991129	HU 1997-2305	19951213
EP 1041071	A1	20001004	EP 2000-113914	19951213
EP 1041066	A1	20001004	EP 2000-113915	19951213
EP 1043325	A1	20001011	EP 2000-113829	19951213
EP 1043325	B1	20040616		
EP 1043326	A1	20001011	EP 2000-113830	19951213
EP 1043315	A1	20001011	EP 2000-113916	19951213
RU 2191774	C2	20021027	RU 1997-112141	19951213
AT 252560	T	20031115	AT 1995-944089	19951213
EP 1382597	A2	20040121	EP 2003-23907	19951213
EP 1382597	A3	20040407		
PT 800519	E	20040331	PT 1995-944089	19951213
ES 2208699	T3	20040616	ES 1995-944089	19951213
AT 269336	T	20040715	AT 2000-113829	19951213
CN 1626534	A	20050615	CN 2004-10074078	19951213
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NO 310617	B1	20010730		
US 6696459	B1	20040224	US 1997-950032	19971014
AU 762398	B2	20030626	AU 2000-27761	20000414
NO 2000003550	A	19970814	NO 2000-3550	20000710
NO 312098	B1	19970814	NO 2000-3551	20000710
NO 2000003551	A	19970814		
NO 2000003552	A	19970814	NO 2000-3552	20000710
NO 313049	B1	20020814		
AU 2003248406	A1	20031106	AU 2003-248406	20030926
US 20040186132	A1	20040923	US 2003-739933	20031217
JP 2007217418	A	20070830	JP 2007-48504	20070228

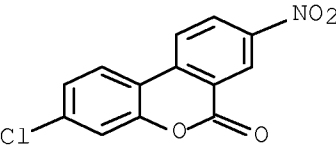
Abstract

Non-steroidal title compds. III and analogs are disclosed [wherein R1-R3 = H, C1-6 alkyl (un)substituted aryl, heteroaryl, allyl, arylmethyl, alkynyl, or alkenyl; R4 = H, alkyl, COR5, OR6, NR6R7; R5 = H, alkyl, (un)substituted alkyl, arylmethyl, alkenyl, alkynyl, aryl, or heteroaryl; R6, R7 = H, alkyl, (un)substituted alkyl, arylmethyl, aryl, or heteroaryl; R9, R10 = H, alkyl, (un)substituted aryl, heteroaryl, allyl, arylmethyl, alkynyl, or alkenyl; R11 = H, alkyl, OR6, (un)substituted alkyl, etc.; R1R2, R2R3, R1R9, R10R11, etc. may form (un)substituted 3- to 7-membered rings; Y = O, CHR6, NR6; Z = (un)substituted monocyclic aryl nucleus]. The compds. are high-affinity, high-selectivity modulators of steroid receptors, and in particular are agonists or antagonists of progesterone receptors. Methods of treatment using the compds. to effect progesterone receptor therapy are claimed. The methods are used for female hormone replacement, modulating human fertility, or treating dysfunctional uterine bleeding, endometriosis, leiomyomas, osteoporosis, cancer of the breast or ovaries, or endometrial cancer. Over 350 synthetic examples are given. For instance, Pd(PPh3)4-catalyzed biaryl coupling of 3-BrC6H4CN with [1-(tert-butoxycarbonyl)-1,2-dihydro-2,2,4-trimethyl-6-quinolinyl]boronic acid and acidic deprotection with CF3CO2H gave title compound IV in 74% yield. Selected compds. were tested in vitro and in vivo for activity at progesterone, androgen, estrogen, glucocorticoid, and mineralocorticoid receptors. In a test for antiprogesterin activity in mice, both IV at 5.0 mg/day and RU-486 at 1.0 mg/day gave complete suppression of pregnancy, with this effect for IV also being reversed by the known progesterone receptor agonist promegestone at 1.0 mg/day. Five pharmaceutical formulations are described.

Hit Structure

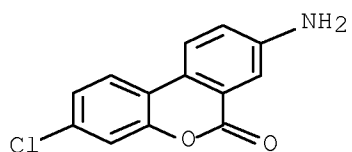
CAS Registry Number  
56825-78-6    CAFLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3-chloro-8-nitro-    (CA INDEX NAME)



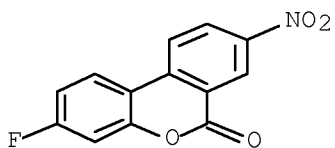
CAS Registry Number  
56825-81-1    CAFLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 8-amino-3-chloro-    (CA INDEX NAME)



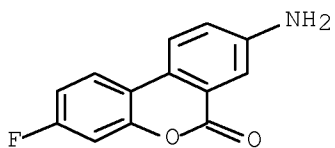
CAS Registry Number  
179898-13-6 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3-fluoro-8-nitro- (CA INDEX NAME)



CAS Registry Number  
179898-14-7 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 8-amino-3-fluoro- (CA INDEX NAME)



OS.CITING REF COUNT: 24 THERE ARE 24 CAPLUS RECORDS THAT CITE THIS  
RECORD (29 CITINGS)

Accession Number

1997:809721 CAPLUS [Full-text](#)

Document Number

128:61505

Title

Preparation of tricyclic heterocycle-fused quinoline derivatives as steroid receptor modulators and methods of their use

Author/Inventor

Jones, Todd K.; Winn, David T.; Goldman, Mark E.; Hamann, Lawrence G.; Zhi, Lin; Farmer, Luc J.; Davis, Robert L.

Patent Assignee/Corporate Source

Ligand Pharmaceuticals Inc., USA

Source

U.S., 127 pp., Cont.-in-part of U.S. Ser. No. 363,529, abandoned. CODEN: USXXAM

Document Type

Patent

Language

English

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5696130	A	19971209	US 1995-462643	19950605
CA 2208347	A1	19960627	CA 1995-2208347	19951213
WO 9619458	A2	19960627	WO 1995-US16096	19951213
WO 9619458	A3	19961212		
AU 9645977	A	19960710	AU 1996-45977	19951213
AU 717251	B2	20000323		
EP 800519	A1	19971015	EP 1995-944089	19951213
EP 800519	B1	20031022		
CN 1175247	A	19980304	CN 1995-197702	19951213
CN 1172917	C	20041027		
BR 9510486	A	19980602	BR 1995-10486	19951213
JP 10510840	T	19981020	JP 1996-519861	19951213
HU 78117	A2	19991129	HU 1997-2305	19951213
EP 1041071	A1	20001004	EP 2000-113914	19951213
EP 1041066	A1	20001004	EP 2000-113915	19951213
EP 1043325	A1	20001011	EP 2000-113829	19951213
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EP 1043315	A1	20001011	EP 2000-113916	19951213
RU 2191774	C2	20021027	RU 1997-112141	19951213
AT 252560	T	20031115	AT 1995-944089	19951213
EP 1382597	A2	20040121	EP 2003-23907	19951213
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NO 2000003551	A	19970814		
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JP 2007217418	A	20070830	JP 2007-48504	20070228

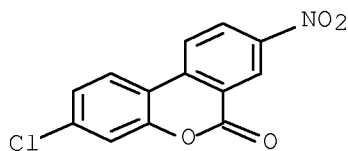
Abstract

Non-steroidal title compds. III and analogs are disclosed [wherein R3 = H, C1-4 alkyl or perfluoroalkyl, CH2OH, aryl, heteroaryl, or (un)substituted allyl, arylmethyl, alkynyl, or alkenyl; R22, R26 = H, F, Cl, Br, iodo, C1-4 alkyl, OR2, SR2, NR2R7; wherein R2 = H, C1-4 alkyl or perfluoroalkyl, aryl, heteroaryl, or (un)substituted allyl, arylmethyl, alkynyl, or alkenyl; R7 = H, C1-4 alkyl or perfluoroalkyl, aryl, heteroaryl, or (un)substituted allyl, arylmethyl, alkynyl, or alkenyl; R8 = H, C1-6 alkyl or perfluoroalkyl, aryl, heteroaryl, (un)substituted allyl or arylmethyl, SO2R2, SOR2; R23 = H, Cl, Br, OR8, NR2R7, C1-4 alkyl or perhaloalkyl, (un)substituted aryl, heteroaryl, allyl, arylmethyl, alkynyl, or alkenyl; R24 = H, F, Br, Cl, C1-4 alkyl or perhaloalkyl, aryl, heteroaryl, CF3, alkoxy, alkoxyethyl, with some exceptions; R27, R28 = H, alkyl, perfluoroalkyl, heteroaryl, or (un)substituted allyl, arylmethyl, alkynyl, alkenyl, or aryl; X = CH2, O, S, NR7; n = 0, 1; Y = O, S; Z = O, S, NH, NR2, NCOR2; R21, R29 = H, alkyl, (un)substituted allyl, arylmethyl, aryl, or heteroaryl; R32, R33 = H, C1-6 alkyl, (un)substituted aryl, etc.; with provisos]. The compds. are high-affinity, high-selectivity modulators of steroid receptors, and in particular are agonists or antagonists of progesterone and androgen receptors. Also disclosed are progestogenic pharmaceutical compns. Incorporating the compds., which are effective in female hormone replacement, modulating human fertility, or treating dysfunctional uterine bleeding, endometriosis, leiomyomas, osteoporosis, cancer of the breast or ovaries, or endometrial cancer. Further disclosed are androgenic pharmaceutical compns. incorporating the compds., for use in treating acne, male-pattern baldness, prostatic hyperplasia, or prostate cancer, or for modulating the musculo-skeletal system. Also disclosed are methods for employing the compds. and compns. for treating patients requiring progesterone or androgen receptor agonist or antagonist therapy. Over 350 synthetic examples are given. For instance, cyclocondensation of 1,2,3,4-tetrahydro-2,2,4-trimethyl-7-hydroxyquinoline with Et 3-keto-3-(3-furyl)propionate in EtOH in the presence of ZnCl2 at 105° gave 16% title compound IV. Selected compds. were tested in vitro and/or in vitro for activity at progesterone, androgen, estrogen, glucocorticoid, and mineralocorticoid receptors. In a test for antagonist activity at androgen receptors expressed in CV-1 cells, IV had an efficacy (maximum response) of 89%, and Ki of 6 nM, vs. 87% and 2085 nM for 2-hydroxyflutamide. Five pharmaceutical formulations are described.

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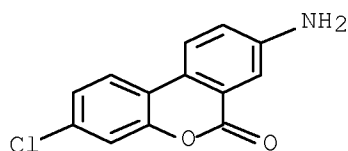
CAS Registry Number  
56825-78-6 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3-chloro-8-nitro- (CA INDEX NAME)



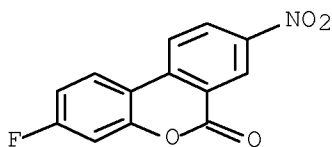
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Chemical or Trade Name  
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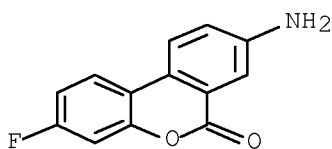
CAS Registry Number  
179898-13-6 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3-fluoro-8-nitro- (CA INDEX NAME)



CAS Registry Number  
179898-14-7 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 8-amino-3-fluoro- (CA INDEX NAME)



OS.CITING REF COUNT: 22 THERE ARE 22 CAPLUS RECORDS THAT CITE THIS RECORD (25 CITINGS)

L8 ANSWER 34 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number  
1997:809720 CAPLUS [Full-text](#)  
Document Number  
128:61504

Title  
Preparation of chromenoquinoline derivatives and analogs as steroid receptor modulator compounds and methods of their use

Author/Inventor  
Jones, Todd K.; Zhi, Lin; Edwards, James P.; Tegley, Christopher M.; West, Sarah J.  
Patent Assignee/Corporate Source  
Ligand Pharmaceuticals Inc., USA

Source  
U.S., 129 pp., Cont.-in-part of U.S. Ser. No. 363,127, abandoned. CODEN: USXXAM

Document Type  
Patent

Language  
English

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5696127	A	19971209	US 1995-465429	19950605

CA 2208347	A1	19960627	CA 1995-2208347	19951213
WO 9619458	A2	19960627	WO 1995-US16096	19951213
WO 9619458	A3	19961212		
AU 9645977	A	19960710	AU 1996-45977	19951213
AU 717251	B2	20000323		
EP 800519	A1	19971015	EP 1995-944089	19951213
EP 800519	B1	20031022		
CN 1175247	A	19980304	CN 1995-197702	19951213
CN 1172917	C	20041027		
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JP 10510840	T	19981020	JP 1996-519861	19951213
HU 78117	A2	19991129	HU 1997-2305	19951213
EP 1041071	A1	20001004	EP 2000-113914	19951213
EP 1041066	A1	20001004	EP 2000-113915	19951213
EP 1043325	A1	20001011	EP 2000-113829	19951213
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EP 1382597	A2	20040121	EP 2003-23907	19951213
EP 1382597	A3	20040407		
PT 800519	E	20040331	PT 1995-944089	19951213
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CN 1626534	A	20050615	CN 2004-10074078	19951213
NO 9702591	A	19970814	NO 1997-2591	19970606
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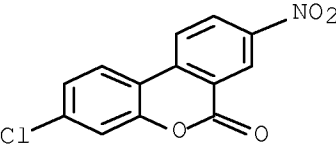
Abstract

Non-steroidal title compds. III and analogs (3 addnl. claimed Markush structures) are disclosed [wherein R3 = H, C1-4 alkyl or perfluoroalkyl, CH2OH, aryl, heteroaryl, or (un)substituted allyl, arylmethyl, alkynyl, or alkenyl; R5-R6 = H, F, Cl, Br, iodo, NO2, CO2H, CO2R2, COR2, cyano, CF3, CH2OH, C1-4 alkyl or perfluoroalkyl, OR2, SR2, SO2R2, SO3H, S(NR2R7)R2, S(O)(NR2R7)R2, NR2R7, aryl, heteroaryl, etc.; wherein R2 = H, C1-4 alkyl or perfluoroalkyl, aryl, heteroaryl, or (un)substituted allyl, arylmethyl, alkynyl, or alkenyl; R7 = H, C1-4 alkyl or perfluoroalkyl, aryl, heteroaryl, or (un)substituted allyl, arylmethyl, NHR8, or OR8; R8 = H, C1-6 alkyl or perfluoroalkyl, aryl, heteroaryl, (un)substituted allyl or arylmethyl, SO2R2, SR2; R9, R10 = H, C1-6 alkyl or perfluoroalkyl, aryl, heteroaryl, (un)substituted allyl, arylmethyl, alkynyl, or alkenyl; or R9 and R10 form a 3- to 7-membered ring optionally substituted with F, OR2, or NR2R7; R11-R14 = H, F, Cl, Br, iodo, NO2, CO2H, CO2R2, COR2, cyano, CF3, CH2OH, C1-4 alkyl or perfluoroalkyl, OR2, SR2, SO2R2, SO3H, S(NR2R7)R2, S(O)(NR2R7)R2, NR2R7, aryl, heteroaryl, or (un)substituted allyl, arylmethyl, alkynyl, or alkenyl; X = CH2, O, S, NR7; R16 = H, OH, OR17, SR17, NR2R7, (un)substituted allyl, etc., or alkyl; R17 = alkyl, etc.; R21, R30, R31 = H, C1-4 alkyl, etc.]. The compds. are high-affinity, high-selectivity modulators of steroid receptors, and in particular are agonists or antagonists of progesterone receptors, or antagonists of glucocorticoid receptors. Also disclosed are pharmaceutical compns. incorporating the compds., which are effective in female hormone replacement, modulating human fertility, or treating dysfunctional uterine bleeding, endometriosis, leiomyomas, osteoporosis, cancer of the breast or ovaries, or endometrial cancer; methods for employing the disclosed compds. and compns. for treating patients requiring progesterone receptor agonist or antagonist therapy; intermediates useful in the preparation of the compds., and processes for their preparation. As glucocorticoid antagonists, some compds. are useful for modulating carbohydrate, protein, and lipid metabolism, as well as functioning of the cardiovascular, kidney, central nervous, immune, and musculo-skeletal systems. Over 350 synthetic examples are given. For instance, title compound IV was prepared in 20% yield from a corresponding coumarinoquinoline derivative by reaction of the coumarin lactone function with MeLi, and reduction of the resulting hemiacetal intermediate with Et3SiH and either BF3.OEt2 or CF3CO2H. Selected compds. were tested in vitro and/or in vivo for activity at progesterone, androgen, estrogen, glucocorticoid and mineralocorticoid receptors. In a test for agonist activity at progesterone receptors expressed in CV-1 cells, IV had an efficacy (maximum response) of 138% vs. progesterone, with comparable potency. Five pharmaceutical formulations are described.

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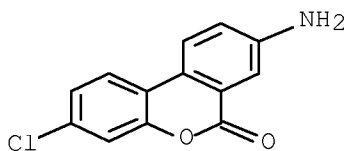
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56825-78-6    CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3-chloro-8-nitro-    (CA INDEX NAME)



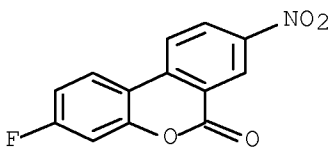
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Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 8-amino-3-chloro- (CA INDEX NAME)



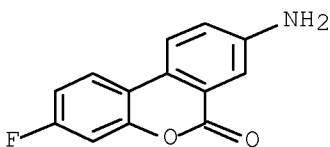
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Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3-fluoro-8-nitro- (CA INDEX NAME)



CAS Registry Number  
179898-14-7 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 8-amino-3-fluoro- (CA INDEX NAME)



OS.CITING REF COUNT: 21 THERE ARE 21 CAPLUS RECORDS THAT CITE THIS RECORD (24 CITINGS)

L8 ANSWER 35 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number  
1997:801084 CAPLUS [Full-text](#)  
Document Number  
128:93053

Title  
Humus, the epitome of Ayurvedio makshika

Author/Inventor  
Ghosal, Shibnath; Muruganandam, V.; Mukhopadhyay, Biswajit; Bhattacharya, Salil K.

Patent Assignee/Corporate Source  
Research and Development Division, Indian Herbs, Saharanpur, 247 001, India

Source  
Indian Journal of Chemistry, Section B: Organic Chemistry Including Medicinal Chemistry (1997 ), 36B(7), 596-604 CODEN: IUSBDB; ISSN: 0376-4699

Document Type  
Journal

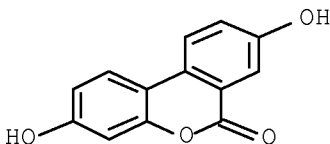
Language  
English

Abstract  
Ayurvedio makshika, a maharasa (rejuvenator, adaptogen), has been shown to be constituted of a large number of low Mr (mol. wt) humio intermediates, and medium and high Mr humio compds. These results dispel a long standing misbelief that the bioactive ingredients of makshika constitute only inorg. minerals, viz. iron and chalcopryrites. The stability of the makshika-humus core appears to be due to complexation with transition metal ions which produce resonance stabilized metallo-organic species. The low Mr organic compds. of makshika, in their natural habitats, find ecol. niche within the micropores of humus and thereby fend off weathering and other extraneous onslaughts for ages. Humus seems to be not one but of all mahararas epitome. The general features of makshika and shilajit are compared in the light of their origin and biol. significance.

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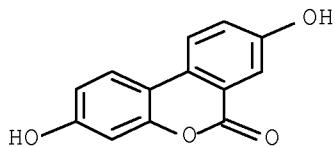
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Chemical or Trade Name  
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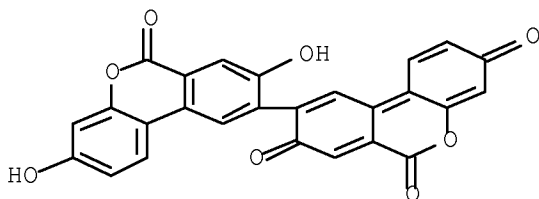
CAS Registry Number  
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Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3,8-dihydroxy- (CA INDEX NAME)



CAS Registry Number  
148351-84-2 CAPLUS

Chemical or Trade Name  
[9,9'-Bi-6H-dibenzo[b,d]pyran]-3,6,6',8-tetrone, 3',8'-dihydroxy- (CA INDEX NAME)



OS.CITING REF COUNT: 7 THERE ARE 7 CAPLUS RECORDS THAT CITE THIS RECORD  
(7 CITINGS)

L8 ANSWER 36 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number  
1997:772299 CAPLUS [Full-text](#)

Document Number  
128:61503

Title

Preparation of heterocycle-fused quinoline derivatives as steroid receptor modulator compounds

Author/Inventor

Jones, Todd K.; Zhi, Lin; Tegley, Christopher M.; Winn, David T.; Hamann, Lawrence G.; Edwards, James P.; West, Sarah J.

Patent Assignee/Corporate Source

Ligand Pharmaceuticals Inc., USA

Source

U.S., 126 pp., Cont.-in-part of U.S. Ser. No. 363,529, abandoned. CODEN: USXXAM

Document Type

Patent

Language

English

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5693647	A	19971202	US 1995-464546	19950605
CA 2208347	A1	19960627	CA 1995-2208347	19951213
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NO 310617	B1	20010730		
AU 762398	B2	20030626	AU 2000-27761	20000414
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JP 2007217418	A	20070830	JP 2007-48504	20070228

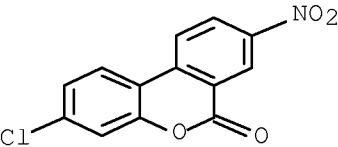
Abstract

Non-steroidal title compds. I and analogs are disclosed [wherein R3 = H, C1-4 alkyl or perfluoroalkyl, CH2OH, aryl, heteroaryl, or (un)substituted allyl, arylmethyl, alkynyl, or alkenyl; R5-R6 = H, F, Cl, Br, iodo, NO2, CO2H, CO2R2, COR2, cyano, CF3, CH2OH, C1-4 alkyl or perfluoroalkyl, OR2, SR2, SOR2, SO2R2, SO3H, S(NR2R7)R2, S(O)(NR2R7)R2, NR2R7, aryl, heteroaryl, etc.; wherein R2 = H, C1-4 alkyl or perfluoroalkyl, aryl, heteroaryl, or (un)substituted allyl, arylmethyl, alkynyl, or alkenyl; R7 = H, C1-4 alkyl or perfluoroalkyl, aryl, heteroaryl, or (un)substituted allyl, arylmethyl, NHR8, or OR8; R8 = H, C1-6 alkyl or perfluoroalkyl, aryl, heteroaryl, (un)substituted allyl or arylmethyl, SO2R2, SOR2, R9, R10 = H, C1-6 alkyl or perfluoroalkyl, aryl, heteroaryl, (un)substituted allyl, arylmethyl, alkynyl, or alkenyl; or R9 and R10 form a 3- to 7-membered ring optionally substituted with F, OR2, or NR2R7; R11-R14 = H, F, Cl, Br, iodo, NO2, CO2H, CO2R2, cyano, CF3, CH2OH, C1-4 alkyl or perfluoroalkyl, OR2, SR2, SOR2, SO2R2, SO3H, S(NR2R7)R2, SO(NR2R7)R2, NR2R7, aryl, heteroaryl, or (un) substituted allyl, arylmethyl, alkynyl, or alkenyl; W = O, NH, NR7, CH2, CHOH, CO, O2C, CO2, NR7CO, NHCO, CONR7, CONH, SC(O), C(O)S, CH(O2CR7); some provisos given]. The compds. are high-affinity, high-selectivity modulators of steroid receptors, and in particular are agonists or antagonists of progesterone receptors. Also disclosed are pharmaceutical compns. incorporating the compds., which are effective in female hormone replacement, modulating human fertility, or treating dysfunctional uterine bleeding, endometriosis, leiomyomas, osteoporosis, cancer of breast or the ovaries, or endometrial cancer; methods for employing the disclosed compds. and compns. for treating patients requiring progesterone receptor agonist or antagonist therapy; and intermediates and processes for the preparation of I. Over 350 synthetic examples are given. For instance, 2-amino-6-chloro-3,4-benzocoumarin underwent alkynylation with HC.tpbond.CCMe2OAc in the presence of CuCl and Et3N, and the resultant propargylated amine intermediate was cyclized by CuCl in refluxing THF to give 24% title compound II. Selected compds. were tested in vitro and in vivo for activity at progesterone, androgen, estrogen, glucocorticoid, and mineralocorticoid receptors. In a test for antagonism at progesterone receptors expressed in CV-1 cells, II gave an efficacy (maximum response) of 94% vs. RU-486, and an EC50 of 140 nM. Five pharmaceutical formulations are described.

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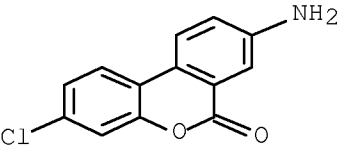
CAS Registry Number  
56825-78-6    CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3-chloro-8-nitro-    (CA INDEX NAME)



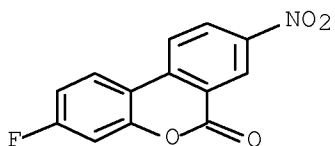
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Chemical or Trade Name  
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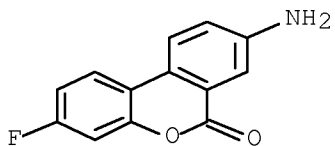
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Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3-fluoro-8-nitro-    (CA INDEX NAME)



CAS Registry Number  
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Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 8-amino-3-fluoro- (CA INDEX NAME)



OS.CITING REF COUNT: 19 THERE ARE 19 CAPLUS RECORDS THAT CITE THIS  
RECORD (20 CITINGS)

\_L8 ANSWER 37 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number

1997:772298 CAPLUS [Full-text](#)

Document Number

128:61502

Title

Preparation of chromenoquinoline derivatives and analogs as steroid receptor modulator compounds and methods

Author/Inventor

Jones, Todd K.; Tegley, Christopher M.; Zhi, Lin; Edwards, James P.; West, Sarah J.

Patent Assignee/Corporate Source

Ligand Pharmaceuticals Inc., USA

Source

U.S., 128 pp., Cont.-in-part of U.S. Ser. No. 363,529, abandoned. CODEN: USXXAM

Document Type

Patent

Language

English

Patent Information

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NO 2000003552	A	19970814	NO 2000-3552	20000710
NO 313049	B1	20020814		
AU 2003248406	A1	20031106	AU 2003-248406	20030926
JP 2007217418	A	20070830	JP 2007-48504	20070228

Abstract

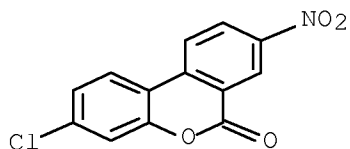
Non-steroidal title compds. III and analogs are disclosed [wherein R3 = H, C1-4 alkyl or perfluoroalkyl, CH2OH, aryl, heteroaryl, or (un)substituted allyl, arylmethyl, alkynyl, or alkenyl; R5-R6 = H, F, Cl, Br, iodo, NO2, CO2H, CO2R2, COR2, cyano, CF3, CH2OH, C1-4 alkyl or perfluoroalkyl, OR2, SR2, SOR2, SO2R2, SO3H, S(NR2R7)R2, S(O)(NR2R7)R2, NR2R7, aryl, heteroaryl, etc.; wherein R2 = H, C1-4 alkyl or perfluoroalkyl, aryl, heteroaryl, or (un)substituted allyl, arylmethyl, alkynyl, or alkenyl; R7 = H, C1-4 alkyl or perfluoroalkyl, aryl, heteroaryl, or (un)substituted allyl, arylmethyl, NHR8, or OR8; R8 = H, C1-6 alkyl or perfluoroalkyl, aryl, heteroaryl, (un)substituted allyl or arylmethyl, SO2R2, SOR2; R9, R10 = H, C1-6 alkyl or perfluoroalkyl, aryl, heteroaryl, (un)substituted allyl, arylmethyl, alkynyl, or alkenyl; or R9 and R10 form a 3- to 7-membered ring optionally substituted with F, OR2, or NR2R7; R11-R14 = H, F, Cl, Br, iodo, NO2, CO2H, CO2R2, COR2, cyano, CF3, CH2OH, C1-4 alkyl or perfluoroalkyl, OR2, SR2, SOR2, SO2R2, SO3H, S(NR2R7)R2, SO(NR2R7)R2, NR2R7, aryl, heteroaryl, or (un)substituted allyl, arylmethyl, alkynyl, or alkenyl; X = CH2, O, S, NR7; R20 = C1-6 alkyl, (un)substituted allyl, arylmethyl, alkenyl, aryl, or heteroaryl; R21 = H, C1-4 alkyl, (un)substituted allyl, arylmethyl, aryl, or heteroaryl; R30, R31 = H, C1-6 alkyl, etc.]. The compds. are high-affinity, high-selectivity modulators of steroid receptors, and in particular are agonists or antagonists of progesterone receptors. Also disclosed are pharmaceutical compns. incorporating the compds., which are effective in female hormone replacement, modulating human fertility, or treating dysfunctional uterine bleeding, endometriosis, leiomyomas, osteoporosis, cancer of the breast or ovaries, or endometrial cancer; methods for employing the disclosed compds. and compns. for treating patients requiring progesterone receptor agonist or antagonist therapy, and intermediates and processes useful in the preparation of the compds. Over 350 synthetic examples are given. For instance, title compound IV was prepared in 70% yield by Grignard reaction of 2-MeC6H4CH2MgCl with the corresponding coumarinoquinoline in Et2O, followed by acid-catalyzed dehydration of the product lactol using p-MeC6H4SO3H in CH2Cl2. Selected compds. were tested in vitro and in vivo for activity at progesterone, androgen, estrogen, glucocorticoid, and mineralocorticoid receptors. In a test for agonist activity at progesterone receptors expressed in CV-1 cells, IV had an efficacy (maximum response) of 231% vs. progesterone, and an equivalent potency (EC50) of 4 nM. Five pharmaceutical formulations are described.

Hit Structure

CAS Registry Number

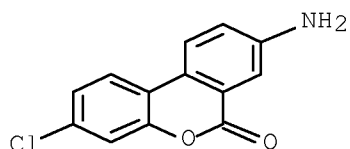
56825-78-6 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3-chloro-8-nitro- (CA INDEX NAME)



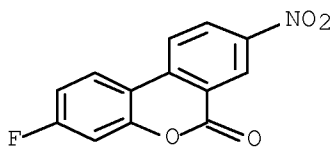
CAS Registry Number  
56825-81-1 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 8-amino-3-chloro- (CA INDEX NAME)



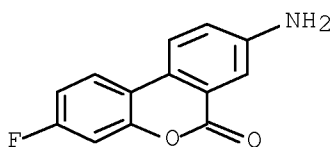
CAS Registry Number  
179898-13-6 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3-fluoro-8-nitro- (CA INDEX NAME)



CAS Registry Number  
179898-14-7 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 8-amino-3-fluoro- (CA INDEX NAME)



OS.CITING REF COUNT: 21 THERE ARE 21 CAPLUS RECORDS THAT CITE THIS RECORD (24 CITINGS)

, L8 ANSWER 38 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number

1997:752743 CAPLUS [Full-text](#)

Document Number

128:34752

Title

Preparation and formulation of heterocyclic compounds as steroid receptor modulators

Author/Inventor

Jones, Todd K.; Goldman, Mark E.; Pooley, Charlotte Lf; Winn, David T.; Edwards, James P.; West, Sarah J.; Tegley, Christopher M.; Zhi, Lin

Patent Assignee/Corporate Source

Ligand Pharmaceuticals Inc., USA

Source

U.S., 127 pp., Cont.-in-part of U.S. Ser. No. 363,529, abandoned. CODEN: USXXAM

Document Type

Patent

Language

English

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5688810	A	19971118	US 1995-464541	19950605
CA 2208347	A1	19960627	CA 1995-2208347	19951213
WO 9619458	A2	19960627	WO 1995-US16096	19951213
WO 9619458	A3	19961212		
AU 9645977	A	19960710	AU 1996-45977	19951213
AU 717251	B2	20000323		
EP 800519	A1	19971015	EP 1995-944089	19951213
EP 800519	B1	20031022		
CN 1175247	A	19980304	CN 1995-197702	19951213
CN 1172917	C	20041027		
BR 9510486	A	19980602	BR 1995-10486	19951213
JP 10510840	T	19981020	JP 1996-519861	19951213
HU 78117	A2	19991129	HU 1997-2305	19951213
EP 1041071	A1	20001004	EP 2000-113914	19951213
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EP 1382597	A3	20040407		
PT 800519	E	20040331	PT 1995-944089	19951213
ES 2208699	T3	20040616	ES 1995-944089	19951213
AT 269336	T	20040715	AT 2000-113829	19951213
CN 1626534	A	20050615	CN 2004-10074078	19951213
NO 9702591	A	19970814	NO 1997-2591	19970606
NO 310617	B1	20010730		
US 6093821	A	20000725	US 1997-943853	19971008
AU 762398	B2	20030626	AU 2000-27761	20000414
NO 2000003550	A	19970814	NO 2000-3550	20000710
NO 312098	B1	19970814	NO 2000-3551	20000710
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NO 2000003552	A	19970814	NO 2000-3552	20000710
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AU 2003248406	A1	20031106	AU 2003-248406	20030926
JP 2007217418	A	20070830	JP 2007-48504	20070228

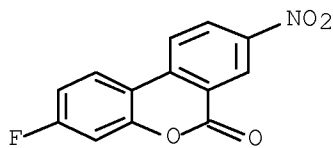
Abstract

The title compds., e.g. I [R1 = (un)substituted heteroaryl (said heteroaryl is attached to the benzene ring through a carbon or nitrogen atom); R3 = H, alkyl, etc.; R4, R5 = H, F, Cl, etc.; R6 = H, F, NO2, etc.; R9, R10 = H, alkyl, perfluoroalkyl, etc.; dotted line depicts optional double bond], are prepared. Also disclosed are pharmaceutical compns. incorporating the title compds., methods for employing the disclosed compds. and compns. for treating patients requiring steroid receptor agonist or antagonist therapy, intermediates useful in the preparation of the compds. and processes for the preparation of the steroid receptor modulator compds. In ovariectomized rats dosed with the title compound II 3 mg orally once a day for 3 days and estrone 10 µg s.c., the mean uterine weight was 125 mg; in ovariectomized rats dosed with estrone 10 µg s.c. only, the mean uterine weight was 205 mg.

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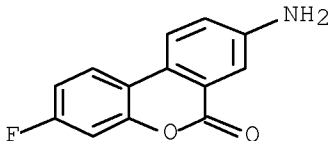
CAS Registry Number  
179898-13-6    CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3-fluoro-8-nitro-    (CA INDEX NAME)



CAS Registry Number  
179898-14-7    CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 8-amino-3-fluoro-    (CA INDEX NAME)



OS.CITING REF COUNT: 31 THERE ARE 31 CAPLUS RECORDS THAT CITE THIS RECORD (33 CITINGS)

L8 ANSWER 39 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number 1997:752742 CAPLUS [Full-text](#)

Document Number 128:34751

Title Preparation of heterocycle-fused quinoline derivatives as steroid receptor modulator compounds

Author/Inventor Jones, Todd K.; Winn, David T.; Zhi, Lin; Hamann, Lawrence G.; Tegley, Christopher M.; Pooley, Charlotte L. F.

Patent Assignee/Corporate Source Ligand Pharmaceuticals Inc., USA

Source U.S., 122 pp., Cont.-in-part of U.S. Ser. No. 363,529, abandoned. CODEN: USXXAM

Document Type Patent

Language English

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5688808	A	19971118	US 1995-463231	19950605
CA 2208347	A1	19960627	CA 1995-2208347	19951213
WO 9619458	A2	19960627	WO 1995-US16096	19951213
WO 9619458	A3	19961212		
AU 9645977	A	19960710	AU 1996-45977	19951213
AU 717251	B2	20000323		
EP 800519	A1	19971015	EP 1995-944089	19951213
EP 800519	B1	20031022		
CN 1175247	A	19980304	CN 1995-197702	19951213
CN 1172917	C	20041027		
BR 9510486	A	19980602	BR 1995-10486	19951213
JP 10510840	T	19981020	JP 1996-519861	19951213
HU 78117	A2	19991129	HU 1997-2305	19951213
EP 1041071	A1	20001004	EP 2000-113914	19951213
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RU 2191774	C2	20021027	RU 1997-112141	19951213
AT 252560	T	20031115	AT 1995-944089	19951213
EP 1382597	A2	20040121	EP 2003-23907	19951213
EP 1382597	A3	20040407		
PT 800519	E	20040331	PT 1995-944089	19951213
ES 2208699	T3	20040616	ES 1995-944089	19951213
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AU 2003248406	A1	20031106	AU 2003-248406	20030926
JP 2007217418	A	20070830	JP 2007-48504	20070228

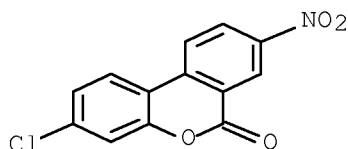
# Abstract

Non-steroidal compds. represented by formula [I]: R3 = H, C1-4 alkyl or perfluoroalkyl, CH2OH, aryl, heteroaryl, or (un)substituted allyl, arylmethyl, alkynyl, or alkenyl; R4 = H, F, Cl, Br, iodo, NO2, CO2H, CO2R2, COR2, cyano, CF3, CH2OH, C1-4 alkyl, perfluoroalkyl, OR2, SR2, SOR2, SO2R2, SO3H, S(NR2R7)R2, S(O)(NR2R7)R2, NR2R7, aryl, heteroaryl, etc.; wherein R2 = H, C1-4 alkyl or perfluoroalkyl, aryl, heteroaryl, or (un)substituted allyl, arylmethyl, alkynyl, or alkenyl; R7 = H, C1-4 alkyl or perfluoroalkyl, aryl, heteroaryl, or (un)substituted allyl, arylmethyl, NH, or OH; R9, R10 = H, C1-6 alkyl or perfluoroalkyl, aryl, heteroaryl, (un)substituted allyl, arylmethyl, alkynyl, or alkenyl; or R9 and R10 are taken together to form a 3- to 7-membered ring optionally substituted with F, OR2, or NR2R7; R11 - R14 = H, F, Cl, Br, iodo, NO2, CO2H, CO2R2, cyano, CF3, CH2OH, C1-4 alkyl or perfluoroalkyl, OR2, SR2, SOR2, SO2R2, SO3H, S(NR2R7)R2, S(O)(NR2R7)R2, NR2R7, aryl, heteroaryl, or (un)substituted allyl, arylmethyl, alkynyl, or alkenyl; W = O, NH, CHOH, CO, O2C, CO2, NR7CO, NHCO, CON7, CONH, SC(O), C(O)S, CH(O2CR7); some provisos given], which are high affinity, high selectivity modulators for steroid receptors, are prepared. Also disclosed are pharmaceutical compns. incorporating such compds. which are effective in female hormone replacement, modulating human fertility, or treating dysfunctional uterine bleeding, endometriosis, leiomyomas, osteoporosis, cancer of breast or the ovaries, or endometrial cancer; methods for employing the disclosed compds. and compns. for treating patients requiring a progesterone steroid receptor agonist or antagonist therapy; intermediates useful in the preparation of the compds.; and processes for the preparation of the steroid receptor modulator compds. Thus, 4-ethyl-1,2,3,4-tetrahydro-7-hydroxyquinoline, excess Et 4,4,4-trifluoroacetoacetate, and ZnCl2 were dissolved in absolute EtOH in a pressure tube and heated at 101° for 10 h to give a pyranon[5,6]quinoline derivative (II) in 47% yield. The title compds. were in vitro tested for binding to progesterone, androgen, estrogen, glucocorticoid and mineralocorticoid receptors. For the whole cell binding assay using COS-1 cells and 3H-dihydrotestosterone as the ligand, II was most active as an androgen receptor agonist with 118% efficacy, 1 nM potency, and Ki value of 0.3 nM, but showed no antagonist activity. Pharmaceutical formulations such as hard gelatin capsules, tablets, and suppositories, and an i.v. formulation containing a chromenoquinoline derivative (III) were prepared

## Hit Structure

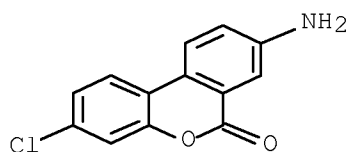
CAS Registry Number  
56825-78-6 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3-chloro-8-nitro- (CA INDEX NAME)



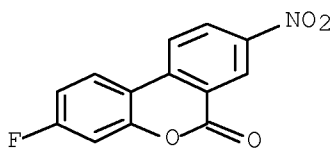
CAS Registry Number  
56825-81-1 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 8-amino-3-chloro- (CA INDEX NAME)



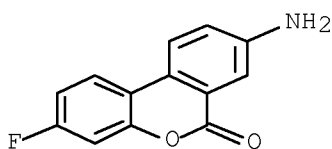
CAS Registry Number  
179898-13-6 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3-fluoro-8-nitro- (CA INDEX NAME)



CAS Registry Number  
179898-14-7 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 8-amino-3-fluoro- (CA INDEX NAME)



OS.CITING REF COUNT: 31 THERE ARE 31 CAPLUS RECORDS THAT CITE THIS RECORD (53 CITINGS)

Title Chemical and biological investigations of the constitutive phenolics of two Egyptian folk-medicinal plants; a novel phenolic from the galls of Tamarix aphylla

Author/Inventor Barakat, Heba H.; Nada, Somaia A.

Patent Assignee/Corporate Source Dept. of Tanning Materials & Proteins, National Research Center, Cairo, Egypt

Source Natural Product Sciences (1996), 2(2), 96-101 CODEN: NPSCFB; ISSN: 1226-3907

Document Type Journal

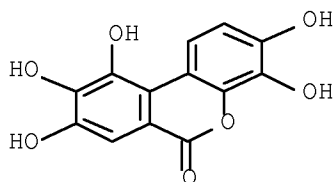
Language English

Abstract A new natural product, 3,4,8-trihydroxybenzopyranopyran-6,9-dione was isolated from the aqueous ethanolic gall extract of Tamarix aphylla (Tamaricaceae) along with the known phenolics, monodecarboxyellagic acid and brevifolin carboxylic acid as well. The structures have been established by ESI-MS, <sup>1</sup>H and <sup>13</sup>C NMR spectral anal. Antiinflammatory, antipyretic and ulcerogenic activities determination for both plants (Tamarix aphylla and Phragmites australis) were carried out on aqueous ethanolic of exts.

Hit Structure

CAS Registry Number  
91485-02-8 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3,4,8,9,10-pentahydroxy- (CA INDEX NAME)



OS.CITING REF COUNT: 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD  
(5 CITINGS)

Accession Number

1997:26038 CAPLUS [Full-text](#)

Document Number

126:74678

Title

Preparation of ellagic acid analogs for prevention of C-type hepatitis

Author/Inventor

Ikeda, Makoto; Sakai, Takashi; Tsui, Suaochiin; Zuo, Iyui; Ryan, Hon; Iyan, Shuei; Kai, Yasunobu; Kako, Yumiko; Tsukada, Itaru; Yanagisawa, Manabu

Patent Assignee/Corporate Source

Eisai Co., Ltd., Japan; Beijing Medical University; Eisai Co Ltd; Beijing Medekaru Univ.

Source

Jpn. Kokai Tokkyo Koho, 34 pp. CODEN: JKXXAF

Document Type

Patent

Language

Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08268890	A	19961015	JP 1995-75476	19950331
JP 3786447	B2	20060614		
CN 1137895	A	19961218	CN 1996-102899	19960326
CN 1147298	C	20040428		

Abstract

Title compds. I [R1-R6 = H, MeO2C, OO, NO2, COOH, NH2, (un)substituted carbamoyl; Q = H, alkyl] are prepared. Thus, 2-(diethylcarbamoyl)-2',4,4'-trimethoxybiphenyl (preparation given) was treated with BBr3 in CH2Cl2 overnight to give, after treatment with aqueous HCl, 37% the title compound 3,8-dihydroxy-6H-dibenzo[b,d]pyran-6-one. In an in vitro study, this showed an internal ribosome entry site-hepatitis C virus selectivity of 45%.

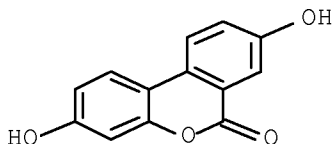
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CAS Registry Number

1143-70-0 CAPLUS

Chemical or Trade Name

6H-Dibenzo[b,d]pyran-6-one, 3,8-dihydroxy- (CA INDEX NAME)

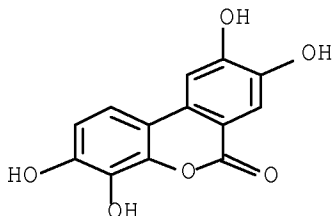


CAS Registry Number

131086-98-1 CAPLUS

Chemical or Trade Name

6H-Dibenzo[b,d]pyran-6-one, 3,4,8,9-tetrahydroxy- (CA INDEX NAME)



OS.CITING REF COUNT: 11 THERE ARE 11 CAPLUS RECORDS THAT CITE THIS RECORD (12 CITINGS)

Accession Number

1996:539409 CAPLUS [Full-text](#)

Document Number

125:190600

Title

Tannins and related compounds from Terminalia arborea

Author/Inventor

Lin, Ta-Chen; Hsu, Feng-Lin

Patent Assignee/Corporate Source

Department of Pharmacy, Tajen Pharmaceutical College, Pingtung, Taiwan

Source

Chinese Pharmaceutical Journal (Taipei) (1996 ), 48(2), 167-175 CODEN: CPHJEP

Document Type

Journal

Language

English

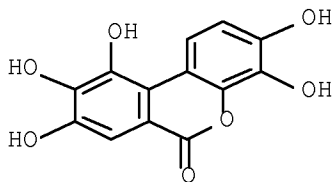
Abstract

Twenty four hydrolyzable tannins and related compds. were isolated and identified from the fruits of T. arborea. These compds. included 3 phenolcarboxylic acids: decarboxyellagic acid, gallic acid and chebulic acid; 8 galloyl glucosides: 1-O-galloyl-β-D-glucose, 3-O-galloyl-D-glucose, 6-O-galloyl-D-glucose, 1,6-di-O-galloyl-β-D-glucose, 3,4-di-O-galloyl-D-glucose, 3,6-di-O-galloyl-D-glucose, 1,3,6-tri-O-galloyl-β-D-glucose, 2,3,4,6-tetra-O-galloyl-D-glucose; 2 galloyl shikimic acids: 5-O-galloyl-(-)-shikimic acid and 3,5-di-O-galloyl-(-)-shikimic acid; 6 ellagitannins: 2,3-(S)-HHDP-D-glucose, 2,3-(S)-HHDP-6-O-galloyl-D-glucose, punicalagin, terchebulin, corilagin and chebulagic acid; and 5 other hydrolyzable tannins: punicalin, chebulinic acid, neochebulinic acid, punicaortein C and 1,3-di-O-galloyl-2,4-chebuloyl-β-D-glucose. Decarboxyellagic acid and 1,3-di-O-galloyl-2,4-chebuloyl-β-D-glucose were isolated for the 1st time from natural products.

Hit Structure

CAS Registry Number  
91485-02-8 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3,4,8,9,10-pentahydroxy- (CA INDEX NAME)



OS.CITING REF COUNT: 7 THERE ARE 7 CAPLUS RECORDS THAT CITE THIS RECORD  
(7 CITINGS)

.L8 ANSWER 43 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number  
1996.494197 CAPLUS [Full-text](#)

Document Number  
125.142697

Title  
Preparation of quinolines and fused quinolines as steroid receptor modulators

Author/Inventor  
Jones, Todd K.; Goldman, Mark E.; Pooley, Charlotte L. F.; Winn, David T.; Edwards, James E.; West, Sarah J.; Tegley, Christopher M.; Zhi, Lin; Hamann, Lawrence G.; et al.

Patent Assignee/Corporate Source  
Ligand Pharmaceuticals Incorporated, USA

Source  
PCT Int. Appl., 403 pp. CODEN: PIXXD2

Document Type  
Patent

Language  
English

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9619458	A2	19960627	WO 1995-US16096	19951213
WO 9619458	A3	19961212		
US 5688808	A	19971118	US 1995-463231	19950605
US 5688810	A	19971118	US 1995-464541	19950605
US 5693646	A	19971202	US 1995-464360	19950605
US 5693647	A	19971202	US 1995-464546	19950605
US 5696130	A	19971209	US 1995-462643	19950605
US 5696127	A	19971209	US 1995-465429	19950605
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HU 78121	A2	19991228	HU 1999-1914	19951213
RU 2191774	C2	20021027	RU 1997-112141	19951213
AT 252560	T	20031115	AT 1995-944089	19951213
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AU 2003248406	A1	20031106	AU 2003-248406	20030926

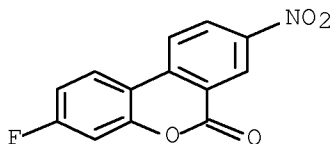
Abstract

Nonsteroidal compds., i.e., quinolines, indeno[2,1-f]quinolines, benzo[b]furano[3,2-g]quinolines, indeno[1,2-g]quinolines, indolo[3,2-g]quinolines, indolo[2,3-f]quinolines, coumarino[3,4-f]quinolines, chromeno[3,4-f]quinolines, pyrano[3,2-g]quinolines, isocoumarino[4,3-g]quinolines, isochromeno[4,3-g]quinolines, pyridono[5,6-g]quinolines and related compds., which are high affinity, high selectivity modulators for steroid receptors, were prepared E.g., reaction of 5.59 mmol 4-(1,2,3-thiadiazolyl)aniline and acetone (70 mL), catalyzed by I2, gave 18% 1,2-dihydro-2,2,4-trimethyl-6-(1,2,3-thiadiazolyl-5-yl)quinoline. Agonist, antagonist, and binding activity of these compds. on progesterone, androgen, estrogen, glucocorticoid, and mineralocorticoid receptors was determined

Hit Structure

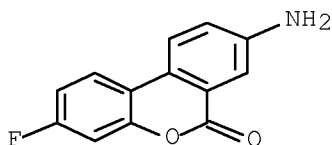
CAS Registry Number  
179898-13-6 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3-fluoro-8-nitro- (CA INDEX NAME)



CAS Registry Number  
179898-14-7 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 8-amino-3-fluoro- (CA INDEX NAME)



OS.CITING REF COUNT: 47 THERE ARE 47 CAPLUS RECORDS THAT CITE THIS  
RECORD (62 CITINGS)

L8 ANSWER 44 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number  
1996:452325 CAPLUS [Full-text](#)

Document Number  
125:96222

Title  
Tissue-compatible implants with immobilized hydrophilic polymers and their preparation

Author/Inventor  
Keller, Ruprecht; Baumann, Hanno; Erdtmann, Martin; Jahnke, Klaus; Held, Michael  
Patent Assignee/Corporate Source  
Germany

Source  
Ger. Offen., 12 pp. CODEN: GWXXBX

Document Type  
Patent

Language  
German

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 4444445	A1	19960620	DE 1994-4444445	19941214
DE 4444445	C2	19980702		

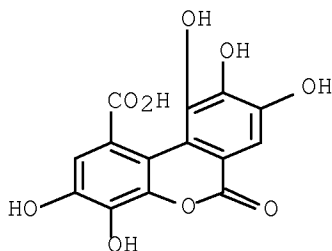
Abstract

Soft- and hard-tissue implants made of synthetic polymers or biopolymers are rendered biocompatible by chemical immobilizing hydrophilic polymers, especially polysaccharides and proteoglycans on their surfaces. Thus, a cellulose membrane was swollen in 4M NaOH, tosylated, and condensed with diaminododecane and 4-azido-1-fluoro-2-nitrobenzene for immobilization of a polysaccharide.

Hit Structure

CAS Registry Number  
476-67-5 CAPLUS

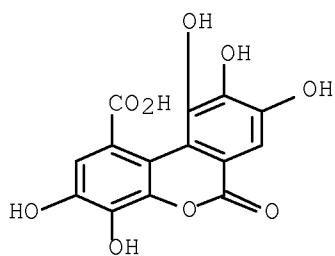
Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-1-carboxylic acid, 3,4,8,9,10-pentahydroxy-6-oxo-  
(CA INDEX NAME)



CAS Registry Number  
476-67-5 CAPLUS

Chemical or Trade Name

6H-Dibenzo[b,d]pyran-1-carboxylic acid, 3,4,8,9,10-pentahydroxy-6-oxo-  
(CA INDEX NAME)



OS.CITING REF COUNT: 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD  
(5 CITINGS)

L8 ANSWER 45 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number

1996:101767 CAPLUS [Full-text](#)

Document Number

124:169099

Title

Novel inhibitors of 3-phosphoglycerate kinase

Author/Inventor

Hickey, Michael J.; Coutts, Ian G. C.; Tsang-Tan, Leon Lee; Pogson, Christopher I.

Patent Assignee/Corporate Source

Dep. of Chemistry & Physics, The Nottingham Trent Univ., Nottingham, NG11 8NS, UK

Source

Biochemical Society Transactions (1995), 23(4), 607S CODEN: BCSTB5; ISSN: 0300-5127

Document Type

Journal

Language

English

Abstract

The present study is based on a preliminary observation that an alkaline solution of gallic acid (3,4,5-trihydroxybenzoic acid), subjected to aerial oxidation markedly inhibited the 3-phosphoglycerate kinase (PGK). Inhibition of PGK (from human erythrocytes) was measured luminometrically in the direction of ATP synthesis.

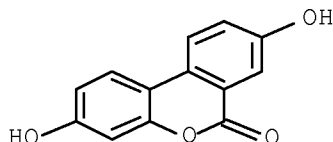
Hit Structure

CAS Registry Number

1143-70-0 CAPLUS

Chemical or Trade Name

6H-Dibenzo[b,d]pyran-6-one, 3,8-dihydroxy- (CA INDEX NAME)

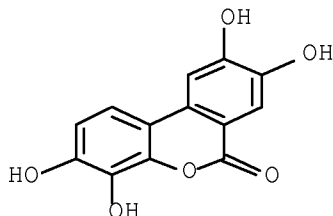


CAS Registry Number

131086-98-1 CAPLUS

Chemical or Trade Name

6H-Dibenzo[b,d]pyran-6-one, 3,4,8,9-tetrahydroxy- (CA INDEX NAME)



OS.CITING REF COUNT: 1

THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD  
(1 CITINGS)

L8 ANSWER 46 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number

1995:653590 CAPLUS [Full-text](#)

Document Number

123:93006

Title

Interaction of shilajit with biogenic free radicals

Author/Inventor

Ghosal, Shibnath; Lata, Soumya; Kumar, Yatendra; Gaur, Bhartendu; Misra, Nira

Patent Assignee/Corporate Source

Dep. Pharm., Banaras Hindu Univ., Varanasi, 221 005, India

Source

Indian Journal of Chemistry, Section B: Organic Chemistry Including Medicinal Chemistry (1995), 34B(7), 596-602 CODEN: IJSBDB; ISSN: 0376-4699

Document Type

Journal

Language

English

Abstract

Processed shilajit (PS), consisting of resonance stabilized soft-spin semiquinone free radicals, has been shown to produce free radical scavenging and antioxidant effects against SO3- and OH radicals and the paramagnetic nitric oxide (NO) depending on the concentration of PS. Agents that can regulate uncontrolled production and function of such biogenic free radicals would conceivably provide cellular protection and revitalization to recipients. The results obtained in this study offer a suitable rationale for the rasayan (revitalizer) effects of shilajit as claimed in Ayurveda.

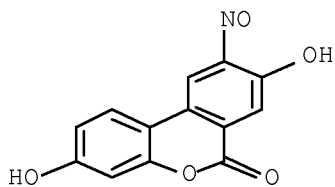
Hit Structure

CAS Registry Number

165393-07-7 CAPLUS

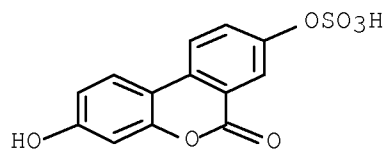
Chemical or Trade Name

6H-Dibenzo[b,d]pyran-6-one, 3,8-dihydroxy-9-nitroso- (CA INDEX NAME)



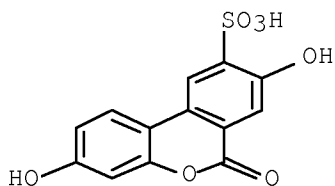
CAS Registry Number  
165393-09-9 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3-hydroxy-8-(sulfooxy)- (CA INDEX NAME)



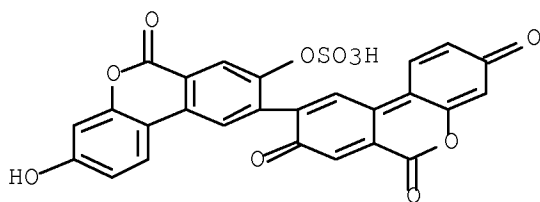
CAS Registry Number  
165393-10-2 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-9-sulfonic acid, 3,8-dihydroxy-6-oxo- (CA INDEX NAME)



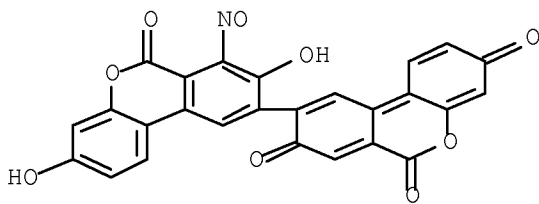
CAS Registry Number  
165393-11-3 CAPLUS

Chemical or Trade Name  
[9,9'-Bi-6H-dibenzo[b,d]pyran]-3,6,6',8-tetrone, 3,8-dihydro-3'-hydroxy-8'-(sulfooxy)- (CA INDEX NAME)



CAS Registry Number  
165393-12-4 CAPLUS

Chemical or Trade Name  
[9,9'-Bi-6H-dibenzo[b,d]pyran]-3,6,6',8-tetrone, 3',8'-dihydroxy-7'-nitroso- (CA INDEX NAME)



OS.CITING REF COUNT: 7 THERE ARE 7 CAPLUS RECORDS THAT CITE THIS RECORD  
(7 CITINGS)

L8 ANSWER 47 OF 165 CAPLUS COPYRIGHT 2011 ACS ON STN

Accession Number

1995:653589 CAPLUS [Full-text](#)

Document Number

123:93005

Title

Free radicals of shilajit humus

Author/Inventor

Ghosal, Shibnath; Lata, Soumya; Kumar, Yatendra

Patent Assignee/Corporate Source

Dep. Pharm., Banaras Hindu Univ., Varanasi, 221 005, India

Source

Indian Journal of Chemistry, Section B: Organic Chemistry Including Medicinal Chemistry (1995 ), 34B(7), 591-5 CODEN: IJSBDB; ISSN: 0376-4699

Document Type

Journal

Language

English

Abstract

The occurrence, structure and reactions of free radicals of shilajit humus (humic acids, HAs; fulvic acids, FAs) are reported on the basis of spectroscopic analyses, chemical transformations, and synthesis. The stability of the free radicals is ascribed to chelation with iron ions and intra-mol. donor-acceptor complex formation by condensed aromatic hemiquinone-semiquinone nuclei of ferric bidentate ligand. Such resonance-stabilized species would find ecol. niche in the mineral-rich micropores of shilajit humus and would be protected from extraneous stresses for a long period of time (residence time of shilajit on mountain rocks). These soft spin free radicals acts as scavengers of nitric oxide and hydroxyl radical in solution to give ferric complexes of dibenzo- $\alpha$ -pyrones. They sequester free/loosely bound iron ions from cytosols. The biol. significance of these findings is indicated.

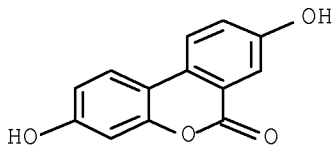
Hit Structure

CAS Registry Number

1143-70-0 CAPLUS

Chemical or Trade Name

6H-Dibenzo[b,d]pyran-6-one, 3,8-dihydroxy- (CA INDEX NAME)

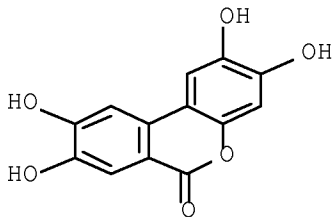


CAS Registry Number

146776-30-9 CAPLUS

Chemical or Trade Name

6H-Dibenzo[b,d]pyran-6-one, 2,3,8,9-tetrahydroxy- (CA INDEX NAME)

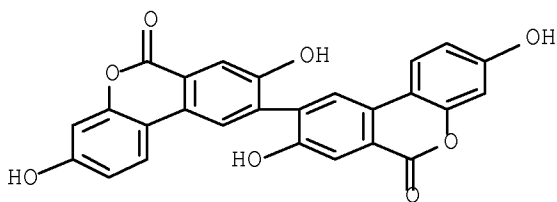


CAS Registry Number

148351-83-1 CAPLUS

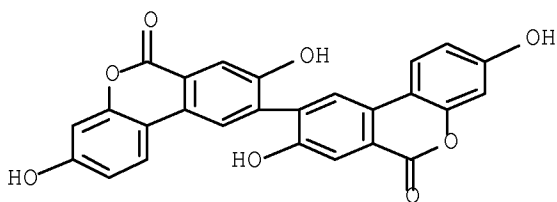
Chemical or Trade Name

[9,9'-Bi-6H-dibenzo[b,d]pyran]-6,6'-dione, 3,3',8,8'-tetrahydroxy- (CA INDEX NAME)



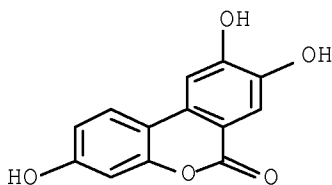
CAS Registry Number  
148351-83-1 CAPLUS

Chemical or Trade Name  
[9,9'-Bi-6H-dibenzo[b,d]pyran]-6,6'-dione, 3,3',8,8'-tetrahydroxy- (CA INDEX NAME)



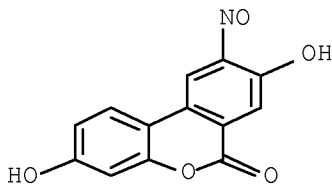
CAS Registry Number  
165393-06-6 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3,8,9-trihydroxy- (CA INDEX NAME)



CAS Registry Number  
165393-07-7 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3,8-dihydroxy-9-nitroso- (CA INDEX NAME)



RL: SPN (Synthetic preparation); PREP (Preparation)  
(occurrence, structure and reactions of free radicals of shilajit humus  
OS.CITING REF COUNT: 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD  
(4 CITINGS)

L8 ANSWER 48 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number  
1995:616231 CAPLUS Full-text

Document Number  
123:74412

Title  
Shilajit induced morphometric and functional changes in mouse peritoneal macrophages

Author/Inventor  
Ghosal, Shibnath; Baumik, Sraboni; Chattopadhyay, Sukumar

Patent Assignee/Corporate Source  
Department of Pharmaceutics, Banaras Hindu University, Varanasi, 221005, India

Source  
Phytotherapy Research (1995), 9(3), 194-8 CODEN: PHYREH; ISSN: 0951-418X

Document Type

Journal  
Language  
English

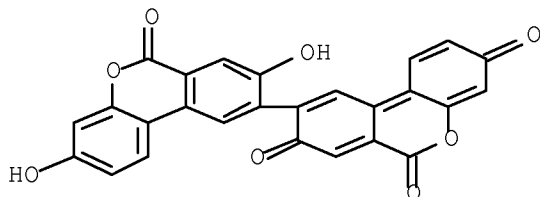
Abstract

The dose- and time-dependent effects of processed Shilajit (SJP) on morphometric and functional changes of mouse peritoneal macrophages were evaluated. Several dynamic aspects of cellular modulations were observed in response to SJP treatment (0.025-900 mcg per mouse, i.p.) for different periods of time (0 min to several hours). A plausible mechanism of drug-receptor interactions, involving different types of transition states, is postulated. Dose and time dependent bond formation-deformation in the complex transitions were reflected in the morphometric and functional manifestations of the adherent cells. These findings suggest the necessity of carefully determining the dose and period of administration of Shilajit even when accepted as a panacea.

Hit Structure

CAS Registry Number  
148351-84-2 CAPLUS

Chemical or Trade Name  
[9,9'-Bi-6H-dibenzo[b,d]pyran]-3,6,6',8-tetrone, 3',8'-dihydroxy- (CA  
INDEX NAME)



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD  
(1 CITINGS)

Accession Number

1995:462833 CAPLUS [Full-text](#)

Document Number

122:302967

Title

Electrophotographic photoreceptor containing bisazo compound carrier-generating agent

Author/Inventor

Hai, Genko; Fujimoto, Shingo

Patent Assignee/Corporate Source

Konishiroku Photo Ind, Japan

Source

Jpn. Kokai Tokkyo Koho, 21 pp. CODEN: JKXXAF

Document Type

Patent

Language

Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 07013373	A	19950117	JP 1993-157243	19930628
JP 3151693	B2	20010403		

Abstract

The photoreceptor consists of a conductive substrate coated with a layer containing an unsym. bisazo compound I [R1, R4 = alkyl, aryl; R2, R5 = H, cyano, amido, ester, acyl; R3, R6 = H, lower alkyl, lower alkoxy, halo, cyano, nitro; A = (substituted) aromatic hydrocarbon ring or heterocycle divalent group]. The photoreceptor shows good durability in repeated uses.

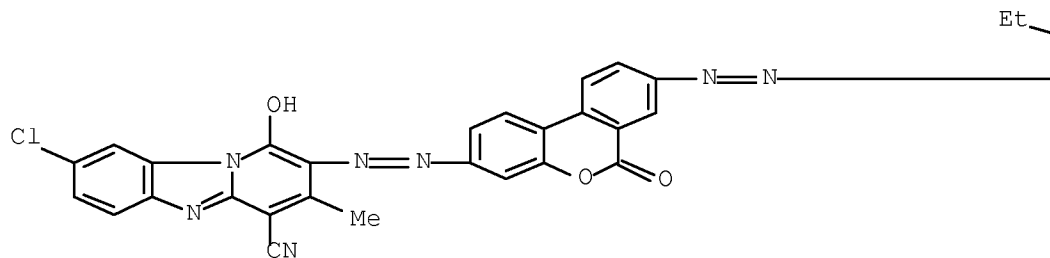
Hit Structure

CAS Registry Number  
162964-59-2 CAPLUS

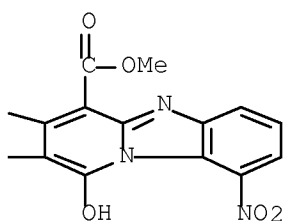
Chemical or Trade Name

Fyrido[1,2-a]benzimidazole-4-carboxylic acid,  
2-[2-[3-[2-(8-chloro-4-cyano-1-hydroxy-3-methylpyrido[1,2-a]benzimidazol-2-yl)diazeryl]-6-oxo-6H-dibenzo[b,d]pyran-8-yl]diazeryl]-3-ethyl-1-hydroxy-9-nitro-, methyl ester (CA INDEX NAME)

PAGE 1-A



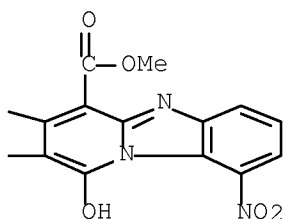
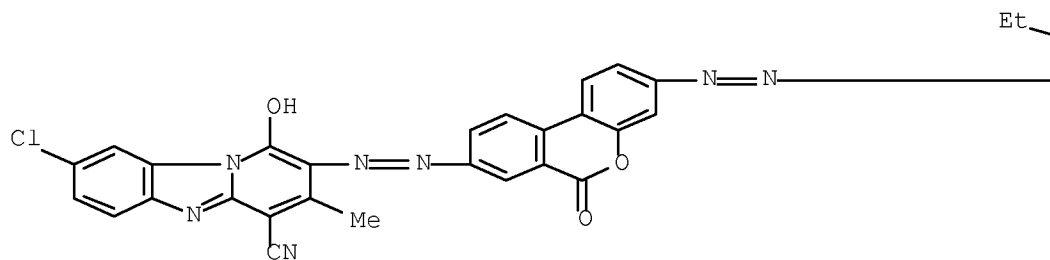
PAGE 1-B



CAS Registry Number  
162964-60-5 CAPLUS

Chemical or Trade Name

Fyrido[1,2-a]benzimidazole-4-carboxylic acid,  
2-[2-[3-[2-(8-chloro-4-cyano-1-hydroxy-3-methylpyrido[1,2-a]benzimidazol-2-yl)diazeryl]-6-oxo-6H-dibenzo[b,d]pyran-3-yl]diazeryl]-3-ethyl-1-hydroxy-9-nitro-, methyl ester (CA INDEX NAME)



.L8 ANSWER 50 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number

1995:285571 CAPLUS ~~File 121~~

Document Number

122:67927

Title

Organic electroluminescent devices

Author/Inventor

Shibata, Toyoko; Suzuki, Shinichi; Takeuchi, Shigeki

Patent Assignee/Corporate Source

Konishiroku Photo Ind, Japan

Source

Jpn. Kokai Tokkyo Koho, 15 pp. CODEN: JKXXAF

Document Type

Patent

Language

Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06122874	A	19940506	JP 1993-209660	19930824

Abstract

The devices contain electron-transporting and phosphor layers of I or II. In I, R1 = (substituted) Ph, biphenyl, benzyl, alkyl, alkoxy; and R2,3 = (substituted) alkyl, alkoxy, aralkyl, aryl, alkyl amine, halo-alkyl, H, halo, NO2, CN, heterocyclic. In II, R1,2 are the same as R2,3 in I.

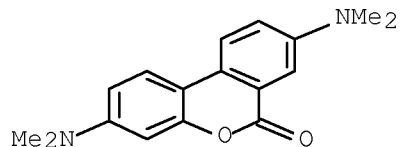
Hit Structure

CAS Registry Number

160108-46-3 CAPLUS

Chemical or Trade Name

6H-Dibenzo[b,d]pyran-6-one, 3,8-bis(dimethylamino)- (CA INDEX NAME)

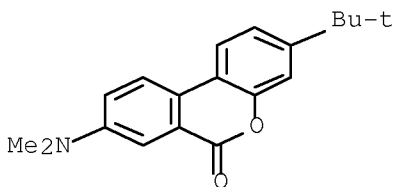


CAS Registry Number

160108-47-4 CAPLUS

Chemical or Trade Name

6H-Dibenzo[b,d]pyran-6-one, 8-(dimethylamino)-3-(1,1-dimethylethyl)- (CA INDEX NAME)



OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD  
(2 CITINGS)

L8 ANSWER 51 OF 165 CAPLUS COPYRIGHT 2011 ACS ON STN

Accession Number  
1994:616952 CAPLUS [Full-text](#)

Document Number  
121:216952

Title  
Photophysical properties and laser characteristics of a new rigid aminocoumarin dye lasing in the blue-green region

Author/Inventor  
Raju, B. Bangar; Varadarajan, T. S.

Patent Assignee/Corporate Source  
Institute fuer Physikalische Chemie, Universitaet Wien, Wien, A-1090, Austria

Source  
Applied Physics B: Lasers and Optics (1994 ), B59(1), 83-6 CODEN: APBOEM; ISSN: 0946-2171

Document Type  
Journal

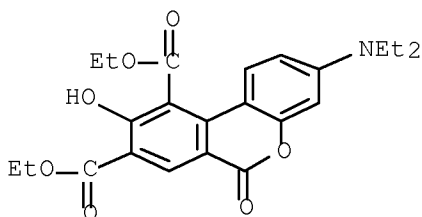
Language  
English

Abstract  
The photophys. properties of a new dye, 7-diethylaminocoumarin with a rigid substitution in the 3-position (referred to as DARC) have been studied in three solvents: dioxane, DMF and DMSO. The dye has been found to have a fluorescence quantum efficiency ( $\phi_f$ ) between 0.40 and 0.80 in these solvents. The dye-laser performance of this dye has also been investigated in dioxane, DMF and DMSO, under nitrogen-laser pumping and compared with that of the com. available standard laser dye, Coumarin 515 (C-515). A tuning range of nearly 70 nm was obtained in the blue-green region with an efficiency up to 80% of that of the standard dye. The observed characteristics of the dye are explained in terms of the structural rigidization of the dye in the 3-position which inhibits the formation of the Twisted Intramol. Charge Transfer (TICT) conformation in the excited state leading to an enhancement of the  $\phi_f$  and a considerable improvement in the laser performance.

Hit Structure

CAS Registry Number  
158146-16-8 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-9,10-dicarboxylic acid,  
3-(diethylamino)-9-hydroxy-6-oxo-, 8,10-diethyl ester (CA INDEX NAME)



L8 ANSWER 52 OF 165 CAPLUS COPYRIGHT 2011 ACS ON STN

Accession Number  
1994:591277 CAPLUS [Full-text](#)

Document Number  
121:191277

Title  
Electrophotographic photoreceptors using novel azo-type carrier-generating agent

Author/Inventor  
Fujimoto, Shingo; Shibata, Toyoko; Hai, Genko

Patent Assignee/Corporate Source  
Konishiroku Photo Ind, Japan

Source  
Jpn. Kokai Tokkyo Koho, 13 pp. CODEN: JKXXAF

Document Type  
Patent

Language  
Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06110234	A	19940422	JP 1992-260372	19920929

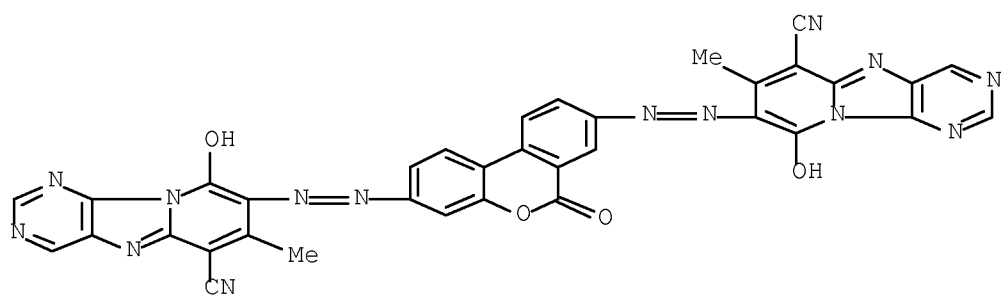
Abstract

The photoreceptors comprise a conductive support with a coating of a photosensitive layer containing an azo compound of a structure in which an organic residue I [X = (substituted) N-containing heterocycle; R1 = lower alkyl, aryl; R2 = CN, CONHR3, CO2R4 (R3, R4 = lower alkyl)] binds to a (substituted) aromatic hydrocarbon ring or heterocycle directly or through a binding group. The photoreceptors show high photosensitivity, low residual potential, and good durability in repeated use. Thus, an Al vapor-deposited polyester film with an interlayer was coated with a carrier-generating layer containing II and with a carrier-transporting layer containing a stilbene compound to give a photoreceptor.

Hit Structure

CAS Registry Number  
157759-94-9 CAPLUS

Chemical or Trade Name  
Fyzido[1,2-e]purine-6-carbonitrile,  
8,8'-[6-oxo-6H-dibenzo[b,d]pyran-3,8-diyl]bis(azo)bis[9-hydroxy-7-methyl-  
(9CI) (CA INDEX NAME)



L8 ANSWER 53 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number  
1994:495968 CAPLUS [Full-text](#)

Document Number  
121:95968

Title  
Preparation of azo dyes and electrophotographic photoreceptors using them as carrier-generating agents

Author/Inventor  
Fujimoto, Shingo; Shibata, Toyoko

Patent Assignee/Corporate Source  
Konishiroku Photo Ind, Japan

Source  
Jpn. Kokai Tokkyo Koho, 14 pp. CODEN: JKXXAF

Document Type  
Patent

Language  
Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06011869	A	19940121	JP 1992-169295	19920626

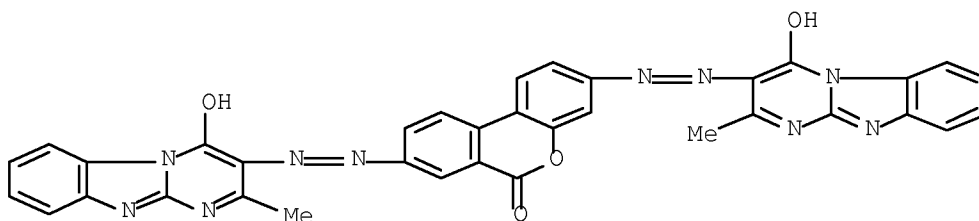
#### Abstract

The photoreceptors comprise a conductive support with a coating of a photosensitive layer containing an azo compound having a structure in which a (un)substituted aromatic or heteroarom. ring combines to an organic group I [R1 = (un)substituted lower alkyl, (un)substituted aryl, ester group; R2 = H, halo, lower alkyl, lower alkoxy, NO2, cyano; n = 1, 2]. The photoreceptors shows high photosensitivity, low residual potential, and good durability in repeated use. Thus, an Al-evaporated polyester film with an interlayer was coated with a carrier-generating layer containing II and with a carrier-transporting layer containing a triphenylamine derivative to give a photoreceptor.

#### Hit Structure

CAS Registry Number  
156810-48-9 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3,8-bis[2-(4-hydroxy-2-methylpyrimido[1,2-a]benzimidazol-3-yl)diazenyl]- (CA INDEX NAME)



L8 ANSWER 54 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number  
1994:483226 CAPLUS [Full-text](#)

Document Number  
121:83226

Title  
Unusual ring transformations: reaction of phenyl 7-fluoro-4-chromone-3-sulfonate with methyl 3-oxopentanoate in the presence of ammonium acetate

Author/Inventor  
Loewe, Werner; Schott, Susan

Patent Assignee/Corporate Source  
Inst. Pharm., Freie Univ. Berlin, Berlin, D-14195, Germany

Source  
Journal of Heterocyclic Chemistry (1994), 31(2), 405-17 CODEN: JHTCAD; ISSN: 0022-152X

Document Type  
Journal

Language  
English

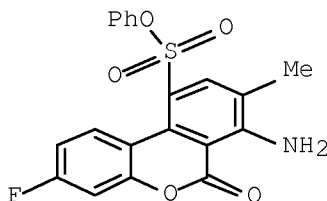
#### Abstract

The novel benzoxathiinopyridines I (R = CH2CO2Me, R1 = Me; R = Et, R1 = CO2Me), the hitherto unknown dibenzopyrone II and the heterocyclic enaminone III were synthesized by ring transformations of Ph 7-fluoro-4-chromone-3-sulfonate (1) with Me 3-oxopentanoate (2) in the presence of NH4OAc (3). The structures of I-III were determined by spectroscopic methods and the reaction pathways of formation for these compds. are discussed.

#### Hit Structure

CAS Registry Number  
156246-55-8 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-10-sulfonic acid, 7-amino-3-fluoro-8-methyl-6-oxo-, phenyl ester (CA INDEX NAME)



L8 ANSWER 55 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number  
1994:478386 CAPLUS [Full-text](#)

Document Number  
121:78386

Title  
NMR spectra analysis of polyphenols from Punica granatum

Author/Inventor

Nawwar, Mahmoud A. M.; Hussein, Sahar A. M.

Patent Assignee/Corporate Source

National Research Center, Cairo, Egypt

Source

Phytochemistry (1994), 36(3), 793-798 CODEN: PYTCAS; ISSN: 0031-9422

Document Type

Journal

Language

English

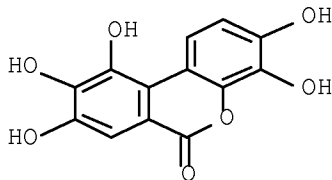
Abstract

Brevifolin carboxylic acid, brevifolin, corilagin, 3,6-(R)-hexahydroxydiphenoyl-( $\alpha/\beta$ )-1C4-glucopyranose, 1,2,6-tri-O-galloyl- $\beta$ -4C1-glucopyranose, 1,4,6-tri-O-galloyl- $\beta$ -4C1-glucopyranose, ellagic acid, 3,4,8,9,10-pentahydroxydibenzo[b,d]pyran-6-one, granatin-B and punicaflin were isolated from the leaves of Punica granatum. <sup>1</sup>H and <sup>13</sup>C NMR spectra of brevifolin carboxylic acid and brevifolin have been recorded and assigned for the first time. A new interpretation of the NMR data or related compds. is discussed. The structure of the new natural polyphenol-1,2,3-tri-O-galloyl- $\beta$ -4C1-glucopyranose has been established.

Hit Structure

CAS Registry Number  
91485-02-8 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3,4,8,9,10-pentahydroxy- (CA INDEX NAME)



OS.CITING REF COUNT: 57 THERE ARE 57 CAPLUS RECORDS THAT CITE THIS RECORD (57 CITINGS)

L8 ANSWER 56 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number

1994:469506 CAPLUS [Full text](#)

Document Number

121:69506

Title

Electrophotographic photoreceptors using novel azo compound carrier-generating agent

Author/Inventor

Fujimoto, Shingo; Shibata, Toyoko

Patent Assignee/Corporate Source

Konishiroku Photo Ind, Japan

Source

Jpn. Kokai Tokkyo Koho, 15 pp. CODEN: JKXXAF

Document Type

Patent

Language

Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06043676	A	19940218	JP 1992-197154	19920723

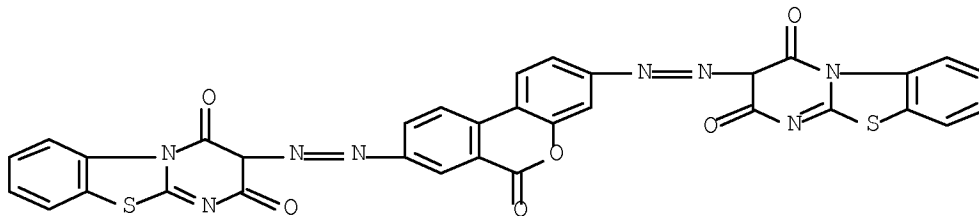
Abstract

The photoreceptors comprise a conductive support with a coating of a photosensitive layer containing an azo compound in which an organic residue I [X = O, S, NH, NR1 (R1 = (substituted) lower alkyl); R2 = H, halo, lower alkyl, lower alkoxy, NO2, CN; n = 1, 2] combines directly or via a binding group to an aromatic hydrocarbon ring or aromatic heterocycle which may be substituted. The photoreceptors show high photosensitivity, low residual potential, and good durability in repeated use. Thus, an Al vapor-deposited polyester film with an interlayer was coated with a carrier-generating layer containing II and with a carrier-transporting layer containing a triphenylamine derivative to give a photoreceptor.

Hit Structure

CAS Registry Number  
156184-88-2 CAPLUS

Chemical or Trade Name  
2H-Pyrimido[2,1-b]benzothiazole-2,4(3H)-dione, 3,3'-[ (6-oxo-6H-dibenzo[b,d]pyran-3,8-diyl)bis(azo)]bis- (9CI) (CA INDEX NAME)



\_L8 ANSWER 57 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number

1994:457315 CAPLUS [Full-text](#)

Document Number

121:57315

Title

Identification of Tricyclic Analogs Related to Ellagic Acid as Potent/Selective Tyrosine Protein Kinase Inhibitors

Author/Inventor

Dow, Robert L.; Chou, Thomas T.; Bechle, Bruce M.; Goddard, Colin; Larson, Eric R.

Patent Assignee/Corporate Source

Central Research Division, Pfizer Inc., Groton, CT, 06340, USA

Source

Journal of Medicinal Chemistry (1994), 37(14), 2224-31 CODEN: JMCMAR; ISSN: 0022-2623

Document Type

Journal

Language

English

Abstract

Tetraphenolic phenanthridinone and carbazole derivs. I and II [R1, R2 = H, OH; R3 = H, Et, CH2Ph, CH2C6H4R-4, CH2C6H3Cl2-3,4, COC6H4r-4, SO2C6H4R-4, 3-pyridylmethyl, (CH2)3Ph, etc.; R = H, NO2, SO2Ph, CN, CF3, Br, Ph, CMe3, SO2Me; R4 = H, Br] related to ellagic acid were prepared and tested for enhanced specificity for inhibition of the tyrosine-specific protein kinase pp60src over other protein kinases. These ring systems were prepared via a general sequence of biaryl bond formation followed by cyclization to form the desired tricyclic ring systems. N-Alkylation, acylation, or sulfonylation and deprotection with BBr3 afforded I and II. Several analogs I and II have potencies comparable to that of ellagic acid and exhibit substantially enhanced selectivities for inhibition of pp60src relative to protein kinase A (PKA), a serine/threonine protein kinase. Carbazole-based analogs II (R1 = OH, R2 = H, R3 = CH2C6H4CN-4, CH2C6H5Cl2-2,6, CH2C6H4SO2Ph) are submicromolar inhibitors of pp60src, with potency for the target tyrosine kinase comparable to that of ellagic acid, however with 2 orders of magnitude greater selectivity vs. that for PKA. As seen for ellagic acid, members of the phenanthridinone-based series, e.g. I (R1 = R3 = H, R2 = OH), exhibited inhibition of pp60src in a manner which is partial mixed noncompetitive with respect to ATP, while carbazole analogs, e.g. II (R1 = R3 = R4 = H, R2 = OH), inhibit pp60src in an ATP competitive manner.

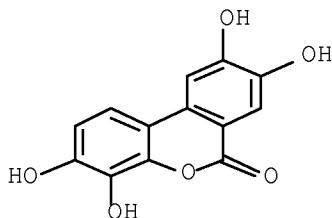
Hit Structure

CAS Registry Number

131096-98-1 CAPLUS

Chemical or Trade Name

6H-Dibenzo[b,d]pyran-6-one, 3,4,8,9-tetrahydroxy- (CA INDEX NAME)



OS.CITING REF COUNTI: 25 THERE ARE 25 CAPLUS RECORDS THAT CITE THIS RECORD (26 CITINGS)

\_L8 ANSWER 58 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number

1994:204590 CAPLUS [Full-text](#)

Document Number

120:204590

Title

Electrophotographic photoreceptors using asymmetric bisazo compound as carrier-generating agent

Author/Inventor

Fujimoto, Shingo; Shibata, Toyoko

Patent Assignee/Corporate Source

Konishiroku Photo Ind, Japan

Source

Jpn. Kokai Tokkyo Koho, 20 pp. CODEN: JKXXAF

Document Type

Patent

Language

Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05232723	A	19930910	JP 1992-32151	19920219

Abstract

The photoreceptors comprise a conductive support with a coating of a photosensitive layer containing a bisazo compound R1N.NZ.NR2 [R1 = I (R3 = (substituted) aromatic hydrocarbyl or heterocyclyl; X = residue condensed with the benzene ring to form an aromatic hydrocarbyl or heterocyclyl); R2 = II (R4 = lower alkyl; R5, R6 = H, halo, lower alkyl, lower alkoxy); Z = divalent (substituted) aromatic hydrocarbyl or heterocyclyl which links directly or through a binding group]. The photoreceptors show high photosensitivity, low residual potential, and durability in repeated use. Thus, an Al-deposited polyester film with an interlayer was coated with a carrier-generating layer containing III and with a carrier-transporting layer containing a stilbene compound to give a photoreceptor.

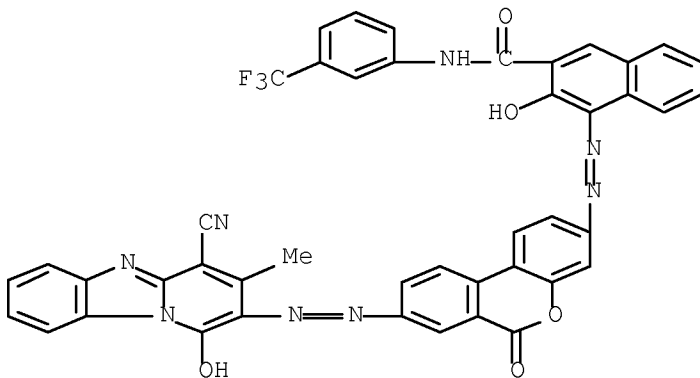
Hit Structure

CAS Registry Number

153801-44-6 CAPLUS

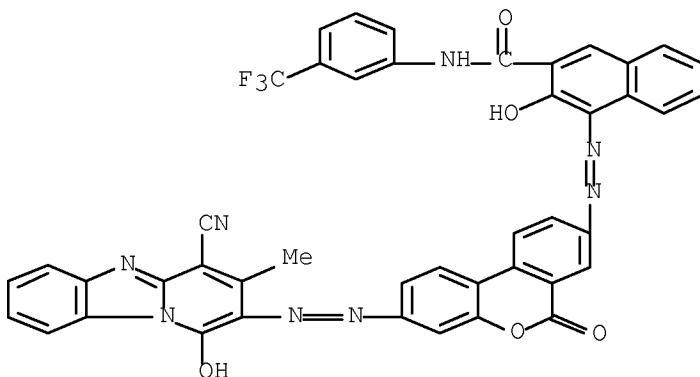
Chemical or Trade Name

2-Naphthalenecarboxamide, 4-[2-[8-[2-(4-cyano-1-hydroxy-3-methylpyrido[1,2-a]benzimidazol-2-yl)diazonyl]-6-oxo-6H-dibenzo[b,d]pyran-3-yl]diazonyl]-3-hydroxy-N-[3-(trifluoromethyl)phenyl]- (CA INDEX NAME)



CAS Registry Number  
153801-45-7 CAPLUS

Chemical or Trade Name  
2-Naphthalenecarboxamide, 4-[2-[3-[2-(4-cyano-1-hydroxy-3-methylpyrido[1,2-a]benzimidazol-2-yl)diazenyl]-6-oxo-6H-dibenzo[b,d]pyran-8-yl)diazenyl]-3-hydroxy-N-[3-(trifluoromethyl)phenyl]- (CA INDEX NAME)



OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD  
(2 CITINGS)

.L8 ANSWER 59 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number  
1994:90810 CAPLUS [Full Text](#)  
Document Number  
120:90810

Title  
Electrophotographic photoreceptors using specific Schiff base as charge-generating agent

Author/Inventor  
Fujimoto, Shingo; Shibata, Toyoko  
Patent Assignee/Corporate Source  
Konishiroku Photo Ind, Japan

Source  
Jpn. Kokai Tokkyo Koho, 17 pp. CODEN: JKXXAF

Document Type  
Patent

Language  
Japanese  
Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05216258	A	19930827	JP 1992-17735	19920203

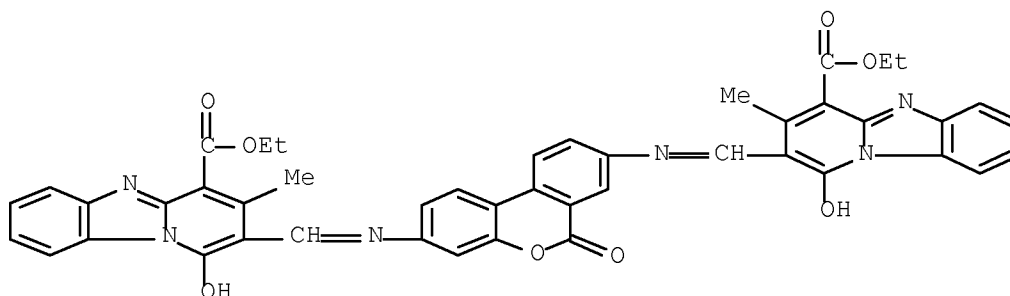
Abstract

The photoreceptors comprise a conductive support with a coating of a photosensitive layer containing a Schiff base I [R1 = alkyl, Ph; R2 = CN, CO2R, CONH2, CONHR; R3, R4 = H, halo, lower alkyl, lower alkoxy, NO2, CN; R5 = (substituted) aromatic hydrocarbyl or heterocyclyl which may be bound via a linking group; n = 2-4]. The photoreceptors show high photosensitivity, low residual potential, and good durability in repeated use. Thus, an Al-laminated polyester film with an interlayer was coated with a charge-generating layer containing II and a charge-transporting layer containing a stilbene compound to give a photoreceptor.

Hit Structure

CAS Registry Number  
152403-58-2 CAPLUS

Chemical or Trade Name  
Fyrido[1,2-a]benzimidazole-4-carboxylic acid,  
2,2'-[6-oxo-6H-dibenzo[b,d]pyran-3,8-diyl]bis(nitrilomethylidyne)]bis[1-hydroxy-3-methyl-, diethyl ester (9CI) (CA INDEX NAME)



L8 ANSWER 60 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number

1994:65872 CAPLUS [Full-text](#)

Document Number

120:65872

Title

Electrophotographic photoreceptors using specific azo compound as carrier-generating agent

Author/Inventor

Fujimoto, Shingo; Shibata, Toyoko

Patent Assignee/Corporate Source

Konishiroku Photo Ind, Japan

Source

Jpn. Kokai Tokkyo Koho, 17 pp. CODEN: JKXXAF

Document Type

Patent

Language

Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05158263	A	19930625	JP 1991-326049	19911210

Abstract

The photoreceptors comprise a conductive support with a coating of a photosensitive layer containing an azo compound having a structure in which an organic azo residue I (R1 = lower alkyl; R2 = H, halo, lower alkyl, lower alkoxy; n = 1, 2) is linked to a (substituted) aromatic hydrocarbon ring or heterocycle through a linking group. The photoreceptors show high photosensitivity, low residual potential, and good durability in repeated use. Thus, an Al-laminated polyester film with an interlayer was coated with a carrier-generating layer containing II and with a carrier-transporting layer containing a stilbene compound to give a photoreceptor.

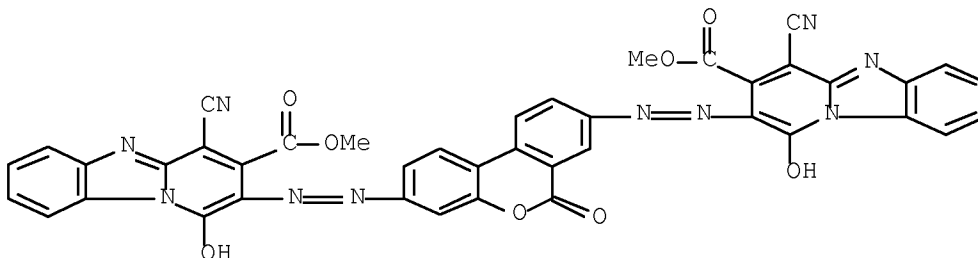
Hit Structure

CAS Registry Number

152044-92-3 CAPLUS

Chemical or Trade Name

Pyrido[1,2-a]benzimidazole-3-carboxylic acid,  
2,2'-bis[(6-oxo-6H-dibenzo[b,d]pyran-3,8-diyl)bis(azo)]bis[4-cyano-1-hydroxy-  
, dimethyl ester (9CI) (CA INDEX NAME)



Accession Number

1993:449227 CAPLUS [Full-text](#)

Document Number

119:49227

Title

Preparation of indole derivatives as testosterone 5 $\alpha$ -reductase inhibitor

Author/Inventor

Okada, Satoshi; Sawada, Kozi; Kayakiri, Natsuko; Sawada, Yuki; Tanaka, Hirokazu; Hashimoto, Masashi

Patent Assignee/Corporate Source

Fujisawa Pharmaceutical Co., Ltd., Japan

Source

PCT Int. Appl., 104 pp. CODEN: PIXXD2

Document Type

Patent

Language

English

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9303012	A1	19930218	WO 1992-JP981	19920803
EP 600084	A1	19940608	EP 1992-916519	19920803

Abstract

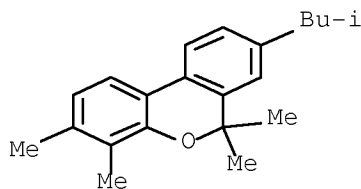
Title compds. I (R1 = carboxy or protected carboxy; R2 = H, alkyl, halo; R3 = aryl, aralkyl, N-heterocycl; A = (substituted) alkenylene; Q = CO, SO2, alkylene; X = (substituted) Ph, furyl; Y = bond, alkylene; Z = bond, alkylene, alkenylene, O, S, (substituted) amine; XYZR3 = 6H-dibenzo[b,d]pyranyl) or a salt thereof, are prepared 4-Indol-3-ylbutyric acid in DMF was added to NaH in DMF followed by Ph 3-(3-isobutylphenoxy)methyl)benzoate (preparation given) to give title compound II. II showed an IC50 of 1.7 + 10-9M as inhibitor of testosterone 5 $\alpha$ -reductase.

Hit Structure

CAS Registry Number  
148254-89-1 CAPLUS

Chemical or Trade Name

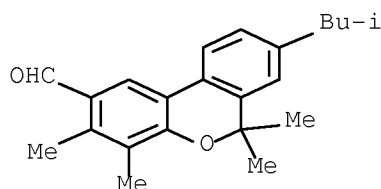
6H-Dibenzo[b,d]pyran, 3,4,6,6-tetramethyl-8-(2-methylpropyl)- (CA INDEX NAME)



CAS Registry Number  
148254-90-4 CAPLUS

Chemical or Trade Name

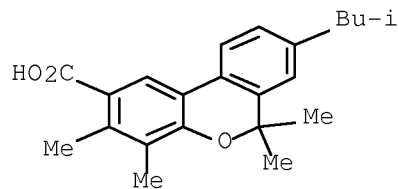
6H-Dibenzo[b,d]pyran-2-carboxaldehyde, 3,4,6,6-tetramethyl-8-(2-methylpropyl)- (CA INDEX NAME)



CAS Registry Number  
148254-91-5 CAPLUS

Chemical or Trade Name

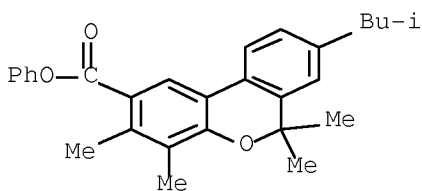
6H-Dibenzo[b,d]pyran-2-carboxylic acid, 3,4,6,6-tetramethyl-8-(2-methylpropyl)- (CA INDEX NAME)



CAS Registry Number  
148255-56-5 CAPLUS

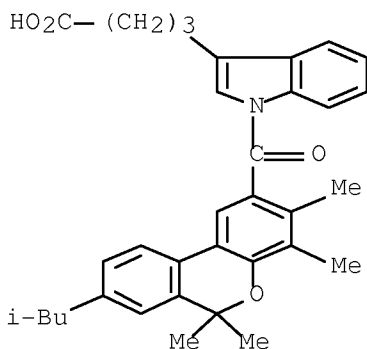
Chemical or Trade Name

6H-Dibenzo[b,d]pyran-2-carboxylic acid,  
3,4,6,6-tetramethyl-8-(2-methylpropyl)-, phenyl ester (CA INDEX NAME)



CAS Registry Number  
148255-94-1 CAPLUS

Chemical or Trade Name  
1H-Indole-3-butanoic acid, 1-[[3,4,6,6-tetramethyl-8-(2-methylpropyl)-6H-dibenzo[b,d]pyran-2-yl]carbonyl]- (CA INDEX NAME)



OS.CITING REF COUNT: 6 THERE ARE 6 CAPLUS RECORDS THAT CITE THIS RECORD  
(14 CITINGS)

L8 ANSWER 62 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number

1993:427340 CAPLUS [Full text](#)

Document Number

119:27340

Title

Similarities in the core structures of shilajit and soil humus

Author/Inventor

Ghosal, Shibnath; Lal, Jawahar; Kanth, Ravi; Kumar, Yatendra

Patent Assignee/Corporate Source

Dep. Pharm., Banaras Hindu Univ., Varanasi, 221005, India

Source

Soil Biology & Biochemistry (1993), 25(3), 377-81 CODEN: SBIOAH; ISSN: 0038-0717

Document Type

Journal

Language

English

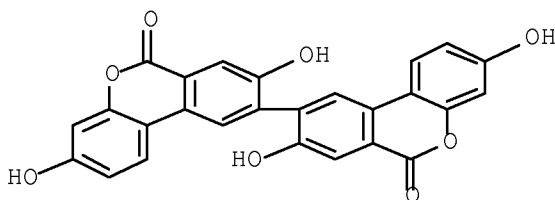
Abstract

Similarities in phys. and chemical characteristics of shilajit and soil humus were shown. Structural similarities of building blocks of the humus core of shilajit and two soil samples have been established by acid hydrolysis of the extracted humus (EHs; free from loosely-bound low Mr organic compds.), followed by comprehensive chromatog. (HPTLC) and spectroscopic (UV, <sup>1</sup>H-NMR, GC, MS) analyses of the degradation products. <sup>13</sup>C-isotopic abundance data of the core mols., as determined from their resp. (M + 1) values, in the EI MS, suggest that the origin of these mols. in shilajit, at least in part, predates their biol. synthesis (e.g. by plant-microbial interaction). A memory mol. (I) and its hemiquinone complement, (II), that exhibited appropriate chemical and biol. properties has been encountered in the core of all humus samples.

Hit Structure

CAS Registry Number  
148351-83-1 CAPLUS

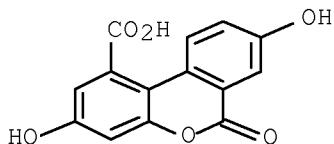
Chemical or Trade Name  
[9,9'-Bi-6H-dibenzo[b,d]pyran]-6,6'-dione, 3,3',8,8'-tetrahydroxy- (CA INDEX NAME)



CAS Registry Number

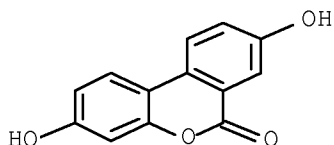
148351-85-3 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-1-carboxylic acid, 3,8-dihydroxy-6-oxo- (CA INDEX NAME)



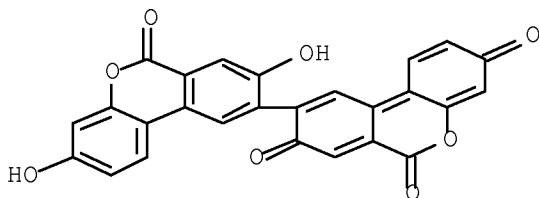
CAS Registry Number  
1143-70-0 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3,8-dihydroxy- (CA INDEX NAME)



CAS Registry Number  
148351-84-2 CAPLUS

Chemical or Trade Name  
[9,9'-Bi-6H-dibenzo[b,d]pyran]-3,6,6',8-tetrone, 3',8'-dihydroxy- (CA INDEX NAME)



OS.CITING REF COUNT: 8 THERE ARE 8 CAPLUS RECORDS THAT CITE THIS RECORD (8 CITINGS)

L8 ANSWER 63 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number

1993:191567 CAPLUS [Full-Text](#)

Document Number

118:191567

Title

Preparation of tricyclic polyhydroxylic tyrosine kinase inhibitors

Author/Inventor

Dow, Robert Lee

Patent Assignee/Corporate Source

Pfizer Inc., USA

Source

PCT Int. Appl., 64 pp. CODEN: PIXXD2

Document Type

Patent

Language

English

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9221660	A1	19921210	WO 1992-US2799	19920410
CA 2108889	A1	19921130	CA 1992-2108889	19920410
EP 586608	A1	19940316	EP 1992-917271	19920410
JP 06503095	T	19940407	JP 1992-510250	19920410
US 6194439	B1	20010227	US 1993-142284	19931123

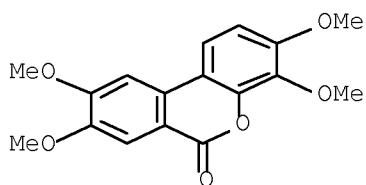
Abstract

Title compds. I (Q = Z1N, Z2C, COX wherein Z1 = H, PhCH2 C1-4 alkyl, pyridylmethyl, naphthylcarbonyl etc.; Z2 = H, O, PhCH2, hydroxybenzyl, pyridylmethyl, quinolinylmethyl, etc.; ≥2 and ≤4 of R2-R8 = HO, the remainder being H; R9 = H, halo, such that R9 = halo when Q = Z1N), useful as tyrosine kinase inhibitors (no data), are prepared To a 0° solution of 5-(phenylmethyl)-2,3,8,9-tetramethoxy-6-(5H)-phenanthridinone in CH2Cl2 was added BBr3 to give the title compound (II).

Hit Structure

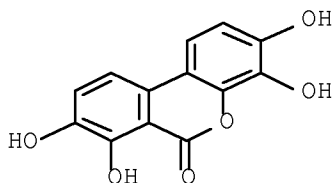
CAS Registry Number  
146776-39-8 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3,4,8,9-tetramethoxy- (CA INDEX NAME)



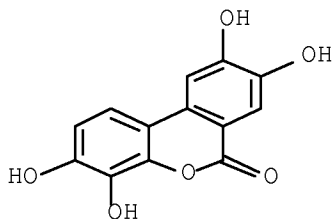
CAS Registry Number  
131086-94-7 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3,4,7,8-tetrahydroxy- (CA INDEX NAME)



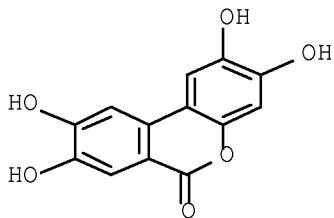
CAS Registry Number  
131086-98-1 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3,4,8,9-tetrahydroxy- (CA INDEX NAME)



CAS Registry Number  
146776-30-9 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 2,3,8,9-tetrahydroxy- (CA INDEX NAME)



OS.CITING REF COUNT: 38 THERE ARE 38 CAPLUS RECORDS THAT CITE THIS RECORD (38 CITINGS)

L8 ANSWER 64 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number

1993:183299 CAPLUS [Full text](#)

Document Number

118:183299

Title

Shilajit. XII. Effects of Shilajit and its active constituents on learning and memory in rats

Author/Inventor

Ghosal, S.; Lal, J.; Jaiswal, A. K.; Bhattacharya, S. K.

Patent Assignee/Corporate Source  
Inst. Technol., Banaras Hindu Univ., Varanasi, 221005, India

Source

Phytotherapy Research (1993), 7(1), 29-34 CODEN: PHYREH; ISSN: 0951-418X

Document Type

Journal

Language

English

Abstract

Effects of processed Shilajit (Sh-P), native Shilajit (Sh-N) (unprocessed water-soluble fraction), and a preparation consisting of a mixture of Et acetate extractives (EE) and fulvic acids (FAs) from Sh-P, were evaluated in (i) an active avoidance, (ii) elevated plus-maze and (iii) open-field behavior paradigms in rats. This study was undertaken to determine the validity Shilajit use as an Ayurvedic medha rasayan (enhancer of learning and memory). Sh-P and its active constituents (EE-FAs) augmented learning acquisition and memory retrieval in the battery of tests designed for this purpose. Sh-N, on the other hand, produced erratic responses (both augmentative and retardative) in the above parameters. The U-shaped dose-responses shown by Sh-P and EE-FAs are reminiscent of agents that improve cognitive functions. Addnl., Sh-P and EE-FAs, in high doses (25-50 mg/kg oral), produced significant antianxiety effect in the open-field behavior test. The present and earlier findings seem to suggest that the action of Shilajit is mediated by facilitating communication between the immune and the central nervous systems. These findings reinforce our earlier postulate that purification of Shilajit is imperative to ensure its optimum therapeutic effect. This would also prevent health risks associated with prolonged ingestion of raw Shilajit containing free radicals and fungal toxins.

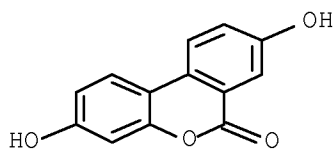
Hit Structure

CAS Registry Number

1143-70-0 CAPLUS

Chemical or Trade Name

6H-Dibenzo[b,d]pyran-6-one, 3,8-dihydroxy- (CA INDEX NAME)



OS.CITING REF COUNT: 9

THERE ARE 9 CAPLUS RECORDS THAT CITE THIS RECORD  
(9 CITINGS)

L8 ANSWER 65 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number  
1993:58331 CAPLUS [Full-text](#)  
Document Number  
118:58331

Title  
Metabolism in sheep of gallic acid, tannic acid and hydrolyzable tannin from Terminalia oblongata

Author/Inventor  
Murdiali, T. B.; McSweeney, C. S.; Lowry, J. B.  
Patent Assignee/Corporate Source  
Grad. Sch. Trop. Vet. Sci., James Cook Univ., Townsville, Australia

Source  
Australian Journal of Agricultural Research ( 1992), 43(6), 1307-19 CODEN: AJAEAS; ISSN: 0004-9409

Document Type  
Journal

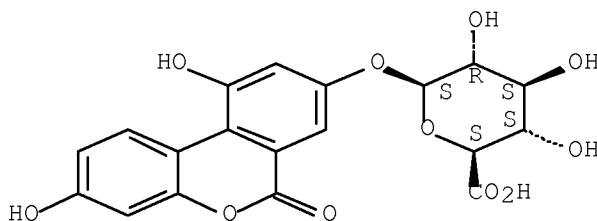
Language  
English

Abstract  
Hydrolyzable tannin (HT) is present in a variety of tropical browse plants, some of which poison ruminants. In an attempt to clarify the toxic action, the major urinary metabolites resulting from dosing of sheep with the HT, tannic acid, its simplest and major phenolic component, gallic acid, and the HT-containing and toxic T. oblongata (yellow-wood) leaves were investigated. Phenolic metabolites were separated by HPLC and their structures investigated by proton and <sup>13</sup>C NMR. Gallic acid was less toxic (on a weight basis) than tannic acid. Comparison of urinary metabolites from rumen and abomasal administration indicated that decarboxylation and reductive dehydroxylation of phenolics occurred principally in the rumen, and a significant proportion was totally degraded. Rumen metabolism appeared to prevent toxicity from gallic and tannic acid at dose rates of <0.4 g/kg live weight/day. Resorcinol glucuronide and the glucuronide of 2-carboxy-2',4',4'-tetrahydroxydiphenyl 2,2'-lactone were the major urinary metabolites derived from tannic acid and probably from yellow-wood HT, and resorcinol glucuronide was the major product of gallic acid metabolism. Minor urinary metabolites included unconjugated pyrogallol, resorcinol, and phloroglucinol. Toxicity appeared to correlate with the passage of the lactone metabolite, presumably arising from the degradation of the hexahydroxydiphenic acid moiety in HT. Yellow-wood toxicity probably occurs under circumstances when animals ingest leaves containing high levels of HT without prior conditioning. A diagnosis of yellow-wood toxicity could be confirmed by the detection of resorcinol and the lactone metabolites in urine of affected ruminants.

Hit Structure

CAS Registry Number  
145459-29-6 CAPLUS

Chemical or Trade Name  
β-D-Glucopyranosiduronic acid,  
3,10-dihydroxy-6-oxo-6H-dibenzo[b,d]pyran-8-yl (CA INDEX NAME)



OS.CITING REF COUNT: 33 THERE ARE 33 CAPLUS RECORDS THAT CITE THIS RECORD (33 CITINGS)

L8 ANSWER 66 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number  
1993:8294 CAPLUS [Full-text](#)  
Document Number  
118:8294

Title  
3,8-Diaminodibenzopyranone as a potential substitute for benzidine in the synthesis of direct dyes

Author/Inventor  
Szadowski, Jerzy  
Patent Assignee/Corporate Source  
Inst. Barwnikow, Politech. Lodzka, Lodz, Pol.

Source  
Przemysl Chemiczny (1992), 71(10), 389-91 CODEN: PRCHAB; ISSN: 0033-2496

Document Type  
Journal

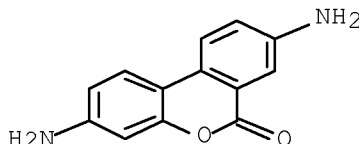
Language  
Polish

Abstract  
The title compound (I) was obtained by oxidation of fluorene to fluorenone, followed by ring cleavage to obtain biphenyl-2-carboxylic acid, which was nitrated to 2',4',4'-trinitrobiphenyl-2-carboxylic acid. Cyclocondensation of this acid gave 3,8-dinitrodibenzopyranone, which was reduced to give I. Diazotization and coupling of I with 8-amino-1-naphthol-3,6-disulfonic acid or 6-amino-1-naphthol-3-sulfonic acid gave direct dyes with properties similar to those of benzidine dyes.

Hit Structure

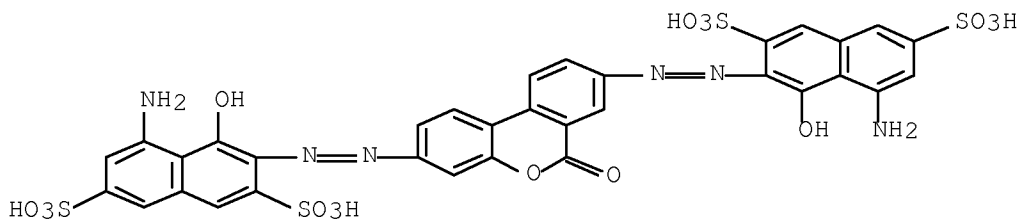
CAS Registry Number  
108525-86-6 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3,8-diamino- (CA INDEX NAME)



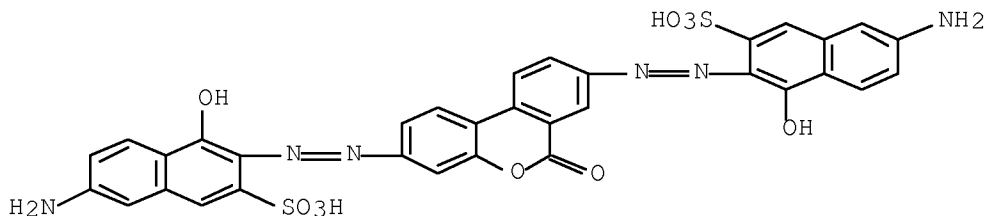
CAS Registry Number  
144929-32-8 CAPLUS

Chemical or Trade Name  
2,7-Naphthalenedisulfonic acid, 3,3'-[[(6-oxo-6H-dibenzo[b,d]pyran-3,8-diyl)bis(azo)]bis[5-amino-4-hydroxy- (9CI) (CA INDEX NAME)



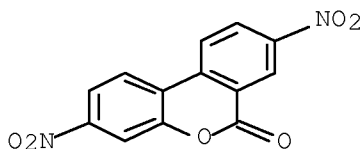
CAS Registry Number  
144929-33-9 CAPLUS

Chemical or Trade Name  
2-Naphthalenesulfonic acid, 3,3'-[(6-oxo-6H-dibenzo[b,d]pyran-3,8-diyl)bis(azo)]bis[7-amino-4-hydroxy- (9CI)] (CA INDEX NAME)



CAS Registry Number  
63636-78-2 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3,8-dinitro- (CA INDEX NAME)



L8 ANSWER 67 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number  
1993:6829 CAPLUS [Full-text](#)  
Document Number  
118:6829

Title  
Synthesis of 6H-dibenzo[b,d]pyran-6-ones via dienone-phenol rearrangements of spiro[2.5-cyclohexadiene-1,1'(3'H)-isobenzofuran]-3'-ones

Author/Inventor  
Hart, David J.; Kim, Adrienne; Krishnamurthy, Ramanarayanan; Merriman, Gregory H.; Waltos, Anne Marie

Patent Assignee/Corporate Source  
Dep. Chem., Ohio State Univ., Columbus, OH, 43210, USA

Source  
Tetrahedron (1992), 48(38), 8179-88 CODEN: TETRAB; ISSN: 0040-4020

Document Type  
Journal

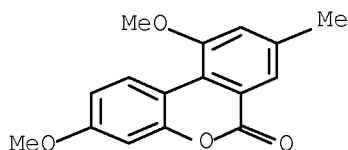
Language  
English

Abstract  
A series of title spiro compds. I (R = R1 = H, R2 = OMe, Cl; R = R2 = H, R1 = OMe, Cl; R = Me, R1 = H, R2 = OMe) were prepared from metalated benzamides and 4,4-dimethoxycyclohexadienone. Rearrangement of these spirodienones under a variety of conditions gave substituted 6H-dibenzo[b,d]pyran-6-ones II (R3, R4 = H, OMe). Rearrangement in aqueous sulfuric acid gave products of formal O-migration while rearrangements in trifluoroacetic anhydride-trifluoroacetic acid-sulfuric acid usually gave C-migration products.

Hit Structure

CAS Registry Number  
144945-97-1 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3,10-dimethoxy-8-methyl- (CA INDEX NAME)



OS.CITING REF COUNT: 7 THERE ARE 7 CAPLUS RECORDS THAT CITE THIS RECORD  
(7 CITINGS)

L8 ANSWER 68 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number

1992:511432 CAPLUS [Full-text](#)

Document Number

117:111432

Title

Transition-metal-catalyzed annulation reactions. 2. Palladium-catalyzed activation of the carbon-hydrogen bond of methoxy groups: simple synthesis of substituted 6H-dibenzo[b,d]pyrans

Author/Inventor

Dyker, Gerald

Patent Assignee/Corporate Source

Inst. Org. Chem., Tech. Univ., Braunschweig, W-3300, Germany

Source

Angewandte Chemie (1992), 104(8), 1079-81 (See also Angew. Chem., Int. Ed. Engl., 1992, 31(8), 1023-5) CODEN: ANCEAD; ISSN: 0044-8249

Document Type

Journal

Language

English

Abstract

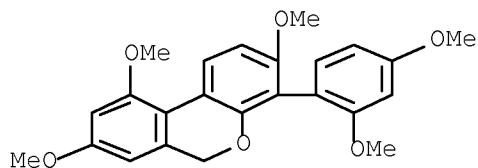
6H-Dibenzo[b,d]pyrans, e.g. I, were prepared by Pd catalyzed activation of C-H bond of methoxy groups in methoxyiodobenzenes. Thus, o-IC<sub>6</sub>H<sub>4</sub>OMe was treated with K<sub>2</sub>CO<sub>3</sub> Bu<sub>4</sub>NBr in DMF containing Pd(OAc)<sub>2</sub> to give 90% I.

Hit Structure

CAS Registry Number  
141957-84-8 CAPLUS

Chemical or Trade Name

6H-Dibenzo[b,d]pyran, 4-(2,4-dimethoxyphenyl)-3,8,10-trimethoxy- (CA  
INDEX NAME)



OS.CITING REF COUNT: 29 THERE ARE 29 CAPLUS RECORDS THAT CITE THIS  
RECORD (29 CITINGS)

\_L8 ANSWER 69 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number  
1992:511386 CAPLUS [Full-text](#)  
Document Number  
117:111386

Title  
Preparation of ellagic acid analogs as mutagen inhibitors

Author/Inventor  
Josephy, Philip D.; Snieckus, Victor A.  
Patent Assignee/Corporate Source  
University of Guelph, Can.

Source  
U.S., 7 pp. CODEN: USXXAM

Document Type  
Patent

Language  
English

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5104894	A	19920414	US 1988-165471	19880308

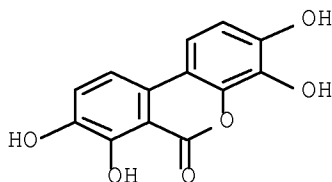
#### Abstract

Title compds. I; R1-R6 = H, OH, OR7; R7 = alkyl, (substituted) phenylalkyl, were prepared. Thus, (Me2CH)2NCOPh was stirred with sec-BuLi/MgNCH2CH2NMe2 in THF at -78°; after 45 min, B(OMe)3 was added and the mixture was warmed to room temperature over 12 h. The mixture was treated with 5% HCl to give 95% 2-[(Me2CH)2NCO]C6H4B(OH)2. The latter was coupled with 2,3,4-trimethoxybromobenzene in refluxing dimethoxyethane containing (Ph3P)4Pd and Na2CO3 to give 93% biphenyl derivative, which in CH2Cl2 at -78° was treated with BBr3 to give 77% title compound II. I effectively inhibited the mutagenic activity of benzo[a]pyrene-7,8-dihydrodiol-9,10-epoxide in the Ames test. I are also said to inhibit DNA damage induced by anticancer alkylating agents.

#### Hit Structure

CAS Registry Number  
131096-94-7 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3,4,7,8-tetrahydroxy- (CA INDEX NAME)



OS.CITING REF COUNTI: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD  
(1 CITINGS)

\_L8 ANSWER 70 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number  
1991:679813 CAPLUS [Full-text](#)  
Document Number  
115:279813

Title  
Preparation of 6H-dibenzo[b,d]pyran-6-ones and their use as aldose reductase inhibitors

Author/Inventor  
Nakayama, Hajime; Ishikura, Masatoshi; Ueda, Yutaka; Imai, Kunihiro; Terajima, Megumi; Suzui, Akio  
Patent Assignee/Corporate Source  
Toyo Pharmar Co., Ltd., Japan; Daiso Co., Ltd.

Source  
Jpn. Kokai Tokkyo Koho, 9 pp. CODEN: JKXXAF

Document Type  
Patent

Language  
Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 02304080	A	19901217	JP 1989-123537	19890517

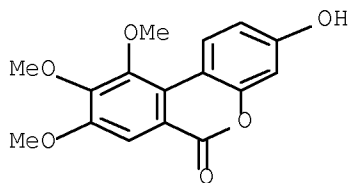
#### Abstract

Title compds. I ( $\geq 1$  of R1-R8 = OSO3M, OCH2CO2M; the others = H, Cl, lower alkyl, lower alkoxy; M = H, alkali metal, ammonium), useful for treatment of complications of diabetes, are prepared by sulfation or etherification of the corresponding hydroxydibenzopyranones (and optional salt formation). Refluxing 2.12 g I (R1, R2, R4-R8 = H, R3 = OH) with 2.33 g HSO3Cl in pyridine for 3 h and treatment of the resulting product with KOH in H2O gave 1.95 g I (R1, R2, R4-R8 = H, R3 = OSO3K), which inhibited aldose reductase with IC50 of  $1.0 \times 10^{-6}$  M. LD50 of I was  $\geq 1$  g/kg p.o. in rats.

#### Hit Structure

CAS Registry Number  
107100-41-4 CAPLUS

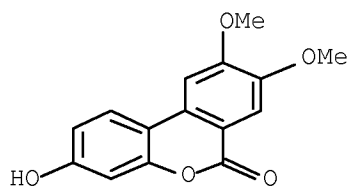
Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3-hydroxy-8,9,10-trimethoxy- (CA INDEX NAME)



CAS Registry Number

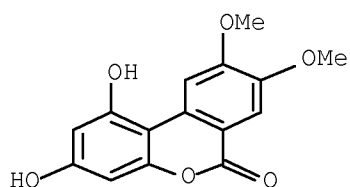
126438-35-5 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3-hydroxy-8,9-dimethoxy- (CA INDEX NAME)



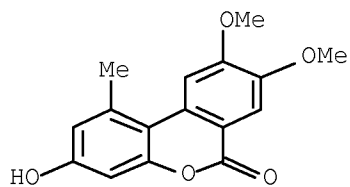
CAS Registry Number  
126438-36-6 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 1,3-dihydroxy-8,9-dimethoxy- (CA INDEX NAME)



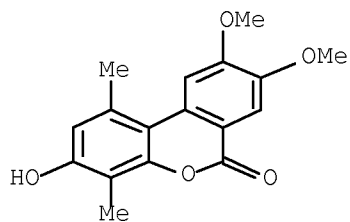
CAS Registry Number  
133540-66-6 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3-hydroxy-8,9-dimethoxy-1-methyl- (CA INDEX NAME)



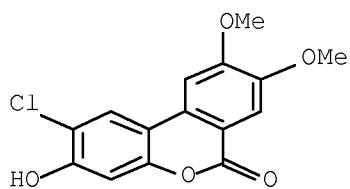
CAS Registry Number  
133540-67-7 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3-hydroxy-8,9-dimethoxy-1,4-dimethyl- (CA INDEX NAME)



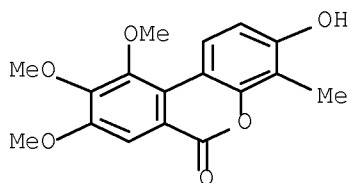
CAS Registry Number  
133540-68-8 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 2-chloro-3-hydroxy-8,9-dimethoxy- (CA INDEX NAME)



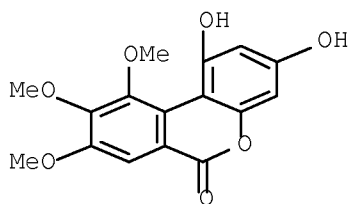
CAS Registry Number  
133540-69-9 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3-hydroxy-8,9,10-trimethoxy-4-methyl- (CA INDEX NAME)



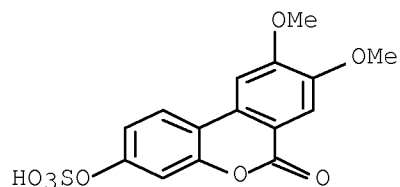
CAS Registry Number  
133540-70-2 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 1,3-dihydroxy-8,9,10-trimethoxy- (CA INDEX NAME)



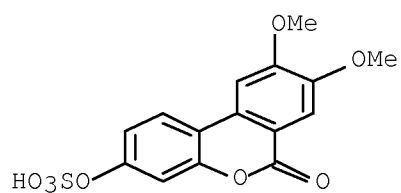
CAS Registry Number  
126438-40-2 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 8,9-dimethoxy-3-(sulfooxy)-, potassium salt (1:1) (CA INDEX NAME)



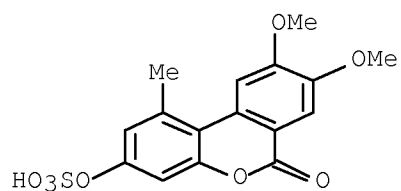
CAS Registry Number  
126438-41-3 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 8,9-dimethoxy-3-(sulfooxy)-, sodium salt (1:1) (CA INDEX NAME)



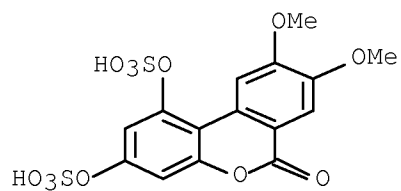
CAS Registry Number  
126438-42-4 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 8,9-dimethoxy-1-methyl-3-(sulfooxy)-,  
potassium salt (1:1) (CA INDEX NAME)



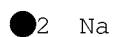
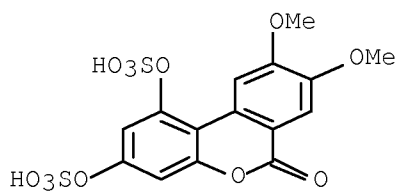
CAS Registry Number  
126438-43-5 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 8,9-dimethoxy-1,3-bis(sulfooxy)-, potassium  
salt (1:2) (CA INDEX NAME)



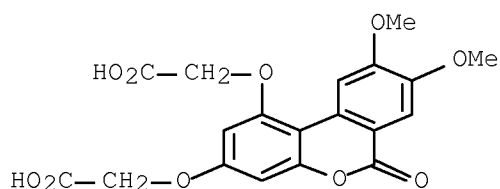
CAS Registry Number  
126438-44-6 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 8,9-dimethoxy-1,3-bis(sulfooxy)-, sodium salt  
(1:2) (CA INDEX NAME)



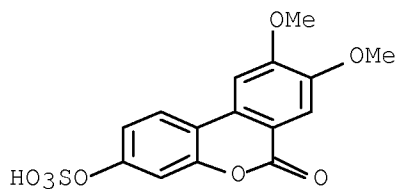
CAS Registry Number  
126438-47-9 CAPLUS

Chemical or Trade Name  
Acetic acid, 2,2'-[(8,9-dimethoxy-6-oxo-6H-dibenzo[b,d]pyran-1,3-diyl)bis(oxy)]bis- (9CI) (CA INDEX NAME)



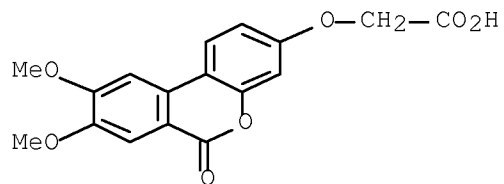
CAS Registry Number  
126470-14-2 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 8,9-dimethoxy-3-(sulfooxy)-, ammonium salt (9CI) (CA INDEX NAME)



CAS Registry Number  
133540-72-4 CAPLUS

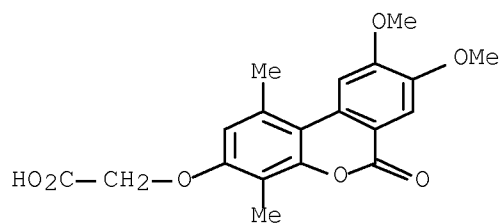
Chemical or Trade Name  
Acetic acid, 2-[(8,9-dimethoxy-6-oxo-6H-dibenzo[b,d]pyran-3-yl)oxy]- (CA INDEX NAME)



CAS Registry Number  
133540-73-5 CAPLUS

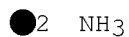
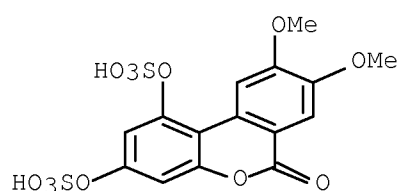
Chemical or Trade Name

Acetic acid, 2-[(8,9-dimethoxy-1,4-dimethyl-6-oxo-6H-dibenzo[b,d]pyran-3-yl)oxy]- (CA INDEX NAME)



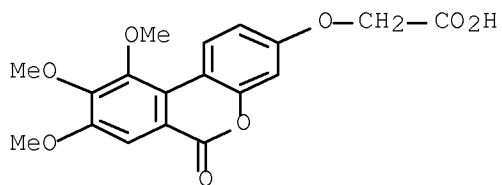
CAS Registry Number  
133540-75-7 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 8,9-dimethoxy-1,3-bis(sulfooxy)-, diammonium salt (9CI) (CA INDEX NAME)



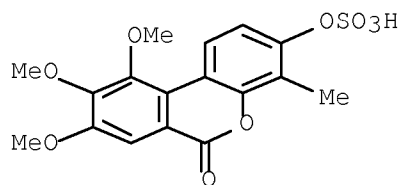
CAS Registry Number  
133540-76-8 CAPLUS

Chemical or Trade Name  
Acetic acid, 2-[(8,9,10-trimethoxy-6-oxo-6H-dibenzo[b,d]pyran-3-yl)oxy]- (CA INDEX NAME)



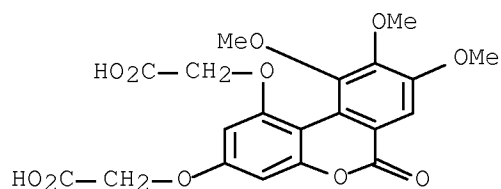
CAS Registry Number  
133540-77-9 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 8,9,10-trimethoxy-4-methyl-3-(sulfooxy)-, potassium salt (1:1) (CA INDEX NAME)



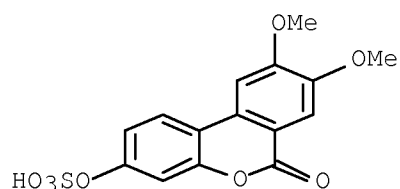
CAS Registry Number  
133540-78-0 CAPLUS

Chemical or Trade Name  
Acetic acid, 2,2'-[(8,9,10-trimethoxy-6-oxo-6H-dibenzo[b,d]pyran-1,3-diyl)bis(oxy)]bis- (9CI) (CA INDEX NAME)



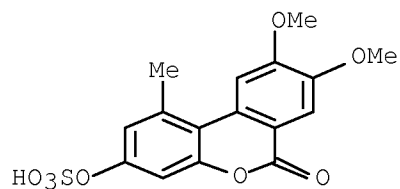
CAS Registry Number  
133540-82-6 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 8,9-dimethoxy-3-(sulfooxy)- (CA INDEX NAME)



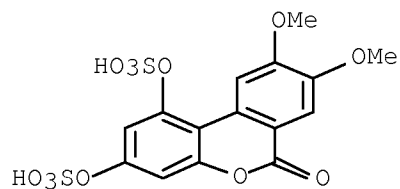
CAS Registry Number  
133540-83-7 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 8,9-dimethoxy-1-methyl-3-(sulfooxy)- (CA INDEX NAME)



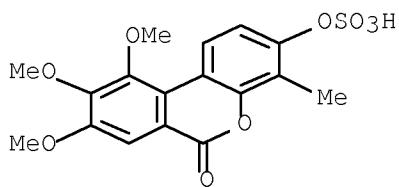
CAS Registry Number  
133540-84-8 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 8,9-dimethoxy-1,3-bis(sulfooxy)- (CA INDEX NAME)



CAS Registry Number  
133558-05-1 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 8,9,10-trimethoxy-4-methyl-3-(sulfooxy)- (CA INDEX NAME)



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD  
(1 CITINGS)

L8 ANSWER 71 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number

1991:639436 CAPLUS [Full-text](#)

Document Number

115:239436

Title

The core structure of shilajit humus

Author/Inventor

Ghosal, Shibnath; Lal, Jawahar; Singh, Sushil K.

Patent Assignee/Corporate Source

Dep. Pharm., Banaras Hindu Univ., Varanasi, 221005, India

Source

Soil Biology & Biochemistry (1991), 23(7), 673-80 CODEN: SBIOAH; ISSN: 0038-0717

Document Type

Journal

Language

English

Abstract

The nature of the building blocks and their alignments in the humus core of shilajit were determined by mild and drastic degradns. and by comprehensive spectroscopic analyses of the products. Mild hydrolysis of humic acids (HAs) from shilajit afforded 2 new dibenzo- $\alpha$ -pyrones, viz. 3-O-palmitoyl-8-hydroxydibenzo- $\alpha$ -pyrone and 3-O- $\beta$ -D-glucosyl-8-hydroxydibenzo- $\alpha$ -pyrone, and two new tirucallane-type triterpenic acids, viz. 23(Z)-3 $\beta$ -hydroxy-tirucalla-8,24-dien-26-oic acid and 24(Z)-3 $\beta$ -hydroxy-tirucalla-7,24-dien-26-oic acid. The resistant HAs (RHAs), obtained after mild hydrolysis, when subjected sep., to KMnO<sub>4</sub> oxidation and Zn dust distillation gave several aromatic carboxylic acids, polynuclear aromatic hydrocarbons, a simple dibenzo- $\alpha$ -pyrone (= 3,4-benzocoumarin) and fluorene. These products, except the 2 last-named compds., have been reported from similar degradns. of soil-sediment humus, indicating the inherent structural similarities of humus from 2 dissimilar sources. On the basis of the above and related observations, a partial structure of the shilajit humus core, involving oxygenated dibenzo- $\alpha$ -pyrones, is postulated. Addnl., the necessity of standardization of shilajit, a panacea in oriental medicine, on the basis of its active principles and carrier mols. (e.g. fulvic acids) is suggested.

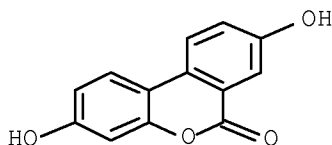
Hit Structure

CAS Registry Number

1143-70-0 CAPLUS

Chemical or Trade Name

6H-Dibenzo[b,d]pyran-6-one, 3,8-dihydroxy- (CA INDEX NAME)

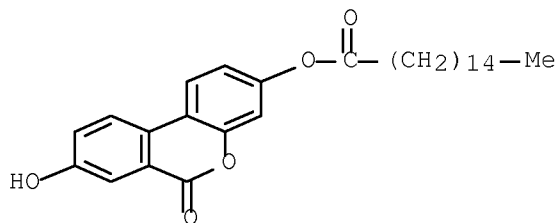


CAS Registry Number

137067-98-2 CAPLUS

Chemical or Trade Name

Hexadecanoic acid, 8-hydroxy-6-oxo-6H-dibenzo[b,d]pyran-3-yl ester (CA INDEX NAME)

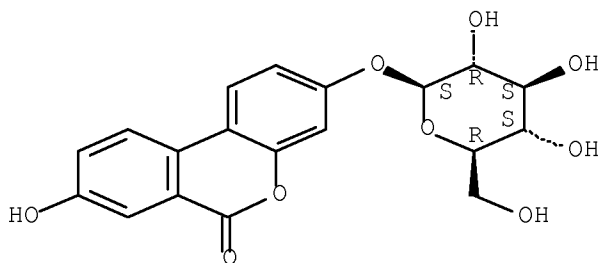


CAS Registry Number

137067-99-3 CAPLUS

Chemical or Trade Name

6H-Dibenzo[b,d]pyran-6-one, 3-( $\beta$ -D-glucopyranosyloxy)-8-hydroxy- (CA INDEX NAME)



OS.CITING REF COUNT: 9 THERE ARE 9 CAPLUS RECORDS THAT CITE THIS RECORD  
(9 CITINGS)

.L8 ANSWER 72 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number  
1991:607611 CAPLUS [Full-text](#)

Document Number  
115:207611

Title  
Novel concepts in directed biaryl synthesis. 4. Diastereoselective ring opening of achiral bridged biaryls using chiral O- and N-nucleophiles: first atropo-enantioselective synthesis of (-)-4,4'-bis(orcinol)

Author/Inventor  
Bringmann, Gerhard; Walter, Rainer; Ewers, Christian L. J.  
Patent Assignee/Corporate Source  
Inst. Org. Chem., Univ. Wuerzburg, Wuerzburg, D-8700, Germany

Source  
Synlett (1991), (8), 581-3 CODEN: SYNLES; ISSN: 0936-5214

Document Type  
Journal

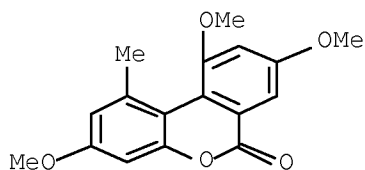
Language  
English

Abstract  
The atropisomer-selective cleavage of the bridged biaryl I, which has no stereogenic element, is described. The directed ring opening of the lactone bridge is achieved with chiral O- or N- nucleophiles, i.e., by external asym. induction. The application of this novel process to the 1st atropo-enantioselective synthesis of the constitutionally sym., known (-)-4,4'-bis(orcinol) II is described.

Hit Structure

CAS Registry Number  
136611-10-4 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3,8,10-trimethoxy-1-methyl- (CA INDEX NAME)



OS.CITING REF COUNT: 12 THERE ARE 12 CAPLUS RECORDS THAT CITE THIS  
RECORD (12 CITINGS)

.L8 ANSWER 73 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number  
1991:542090 CAPLUS [Full-text](#)

Document Number  
115:142090

Title  
Chemistry of shilajit, an immunomodulatory Ayurvedic rasayan

Author/Inventor  
Ghosal, Shibnath

Patent Assignee/Corporate Source  
Dep. Pharm., Banaras Hindu Univ., Varanasi, India

Source  
Pure and Applied Chemistry (1990), 62(7), 1285-8 CODEN: PACHAS; ISSN: 0033-4545

Document Type  
Journal

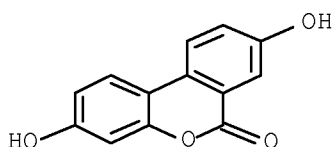
Language  
English

Abstract  
The chemical polemics in the reported literature on shilajit are resolved. This study shows that humification of latex and resin-bearing plants is responsible for the major organic mass (80-85%) of shilajit. The low-mol.-weight chemical markers (8-10%), viz. aucuparins, oxygenated dibenzo- $\alpha$ -pyrones and triterpenic acids of the tirucallane type (free and conjugated), occurring in the core structure of shilajit humus, are the major active constituents of Himalayan shilajit. The therapeutic effects of shilajit are the consequences of hormonal control and regulation of immunity.

Hit Structure

CAS Registry Number  
1143-70-0 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3,8-dihydroxy- (CA INDEX NAME)



OS.CITING REF COUNT: 15 THERE ARE 15 CAPLUS RECORDS THAT CITE THIS RECORD (15 CITINGS)

.L8 ANSWER 74 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number  
1991:428958 CAPLUS [Full-text](#)

Document Number  
115:28958

Title  
Sequential directed ortho metalation-boronic acid cross-coupling reactions. A general regiospecific route to oxygenated dibenzo[b,d]pyran-6-ones related to ellagic acid

Author/Inventor  
Alo, B. I.; Kandil, A.; Patil, P. A.; Sharp, M. J.; Siddiqui, M. A.; Snieckus, Victor; Josephy, P. D.

Patent Assignee/Corporate Source  
Guelph-Waterloo Cent. Grad. Work Chem., Univ. Waterloo, Waterloo, ON, N2L 3G1, Can.

Source  
Journal of Organic Chemistry (1991), 56(12), 3763-8 CODEN: JOCEAH; ISSN: 0022-3263

Document Type  
Journal

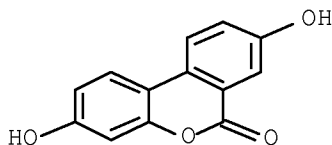
Language  
English

Abstract  
Ortho metalation-boronation of RC<sub>6</sub>H<sub>4</sub>CONR<sub>2</sub>1 [R = H, 2-OMe, 2,3-(OMe)<sub>2</sub>, R<sub>1</sub> = CHMe<sub>2</sub>, Et] gave the arylboronic acids I which upon Pd-catalyzed cross-coupling with alkoxybromobenzenes II (R<sub>2</sub> = Me, CH<sub>2</sub>OMe, R<sub>3</sub> = H, 3, 4-(OMe)<sub>2</sub>, 4-MeO, 4-MeO-6-Me) gave 45-88% biphenylamides III. BB<sub>3</sub> demethylation of III followed by acid-catalyzed cyclization gave 47-89% dibenzo[b,d]pyran-6-ones IV.

Hit Structure

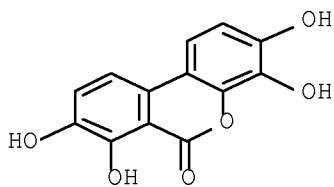
CAS Registry Number  
1143-70-0 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3,8-dihydroxy- (CA INDEX NAME)



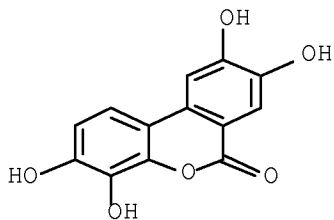
CAS Registry Number  
131086-94-7 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3,4,7,8-tetrahydroxy- (CA INDEX NAME)



CAS Registry Number  
131086-98-1 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3,4,8,9-tetrahydroxy- (CA INDEX NAME)



OS.CITING REF COUNT: 107 THERE ARE 107 CAPLUS RECORDS THAT CITE THIS RECORD (111 CITINGS)

.L8 ANSWER 75 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number  
1991:409541 CAPLUS [Full-text](#)

Document Number  
115:9541

Title  
Structural effects in the formation of intermolecular charge-transfer polymer complexes

Author/Inventor  
Tkachev, A. V.; Tverskoi, V. A.; Zubov, V. P.

Patent Assignee/Corporate Source  
Mosk. Inst. Tonkoi Khim. Tekhnol., Moscow, USSR

Source  
Vysokomolekulyarnye Soedineniya, Seriya A (1991), 33(2), 270-4 CODEN: VYSAAF; ISSN: 0507-5475

Document Type  
Journal

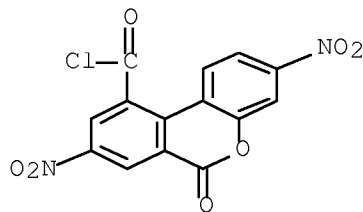
Language  
Russian

Abstract  
Formation and structure of charge-transfer complexes of dinitrodibenzopyranonyl group-containing Me hydroxypropyl siloxanes and dinitrofluorenyl group-containing polymethacrylates with N-ethylcarbazole, poly(N-vinylcarbazole), and poly(N-epoxypropylcarbazole) was studied. In all cases complexes of the 1:1 composition were formed. The stability of the complexes depended on the structure of the macromol. chains, on the content of acceptor groups, and on the concentration and structure of the shielding groups. The comparison with complexes of low-mol.-weight model compds. was made.

Hit Structure

CAS Registry Number  
124959-80-4 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-10-carbonyl chloride, 3,8-dinitro-6-oxo- (CA INDEX NAME)

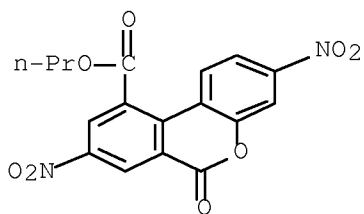


CAS Registry Number  
133959-56-5 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-10-carboxylic acid, 3,8-dinitro-6-oxo-, propyl ester, compd. with 9-(oxiranylmethyl)-9H-carbazole homopolymer (9CI) (CA INDEX NAME)

CM  
1

CRN 133959-55-4  
CMF C17 H12 N2 O8

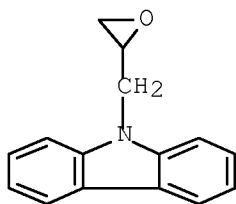


CM 2

CRN 55774-96-4  
CMF (C15 H13 N O)x  
CCI FMS

CM 3

CRN 52131-82-5  
CMF C15 H13 N O

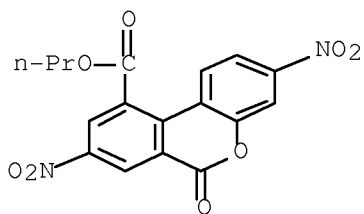


CAS Registry Number  
133977-15-8 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-10-carboxylic acid, 3,8-dinitro-6-oxo-, propyl ester,  
compd. with 9-ethenyl-9H-carbazole homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 133959-55-4  
CMF C17 H12 N2 O8

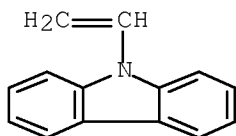


CM 2

CRN 25067-59-8  
CMF (C14 H11 N)x  
CCI FMS

CM 3

CRN 1484-13-5  
CMF C14 H11 N

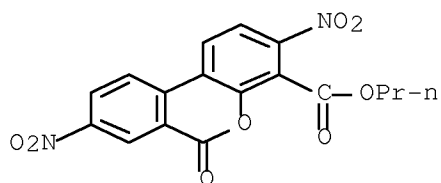


CAS Registry Number  
134072-43-8 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-4-carboxylic acid, 3,8-dinitro-6-oxo-, propyl ester,  
compd. with 9-ethyl-9H-carbazole (1:?) (CA INDEX NAME)

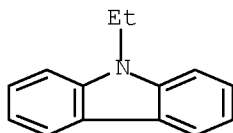
CM 1

CRN 134847-07-7  
CME C17 H12 N2 O8



CM 2

CRN 86-28-2  
CME C14 H13 N



, L8 ANSWER 76 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number  
1991:237618 CAPLUS [Full-text](#)

Document Number  
114:237618

Title  
Electrophotographic photoreceptor using disazo pigment as charge-generating agent

Author/Inventor  
Kanamaru, Tetsuo  
Patent Assignee/Corporate Source  
Canon K. K., Japan

Source  
Jpn. Kokai Tokkyo Koho, 11 pp. CODEN: JKXXAF

Document Type  
Patent

Language  
Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 02253267	A	19901012	JP 1989-77062	19890328

Abstract

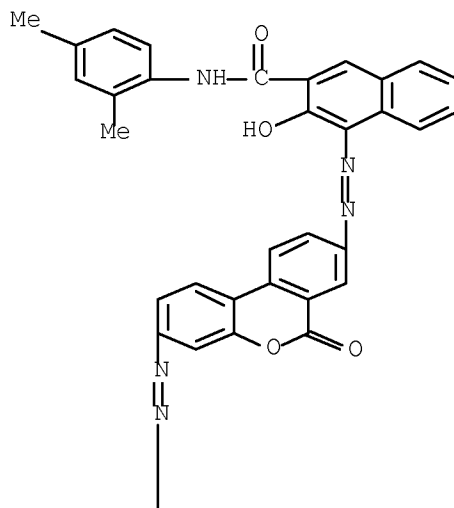
The title photoreceptor comprises an elec. conductive support coated with a photosensitive layer containing a disazo pigment I (R, R1 = coupler residue having phenolic OH group; R2, R3, = H, halo, alkyl, alkoxy). The photoreceptor shows good photosensitivity and stable potential in repeated use. Thus, an Al plate was coated with a charge-generating layer containing I (R = R1 = II; R2 = R3 = H) and with a charge-transporting layer containing a hydrazone compound to give a photoreceptor.

Hit Structure

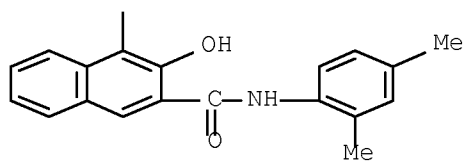
CAS Registry Number  
108525-68-4 CAPLUS

Chemical or Trade Name  
2-Naphthalenecarboxamide, 4,4'-[ (6-oxo-6H-dibenzo[b,d]pyran-3,8-diyl)bis(azo)]bis[N-(2,4-dimethylphenyl)-3-hydroxy- (9CI) (CA INDEX NAME)

PAGE 1-A



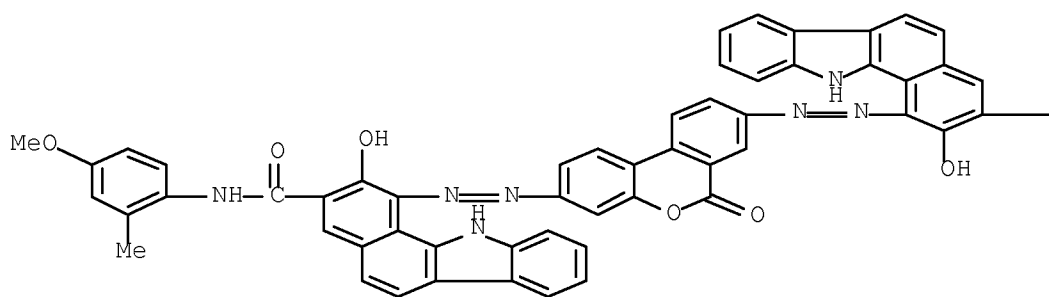
PAGE 2-A



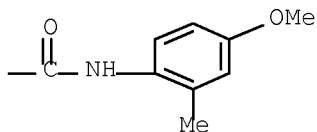
CAS Registry Number  
108525-87-7 CAPLUS

Chemical or Trade Name  
11H-Benzo[a]carbazole-3-carboxamide,  
1,1'-bis-[(6-oxo-6H-dibenzo[b,d]pyran-3,8-diyl)bis(azo)]bis[2-hydroxy-N-(4-  
methoxy-2-methylphenyl)- (9CI) (CA INDEX NAME)]

PAGE 1-A



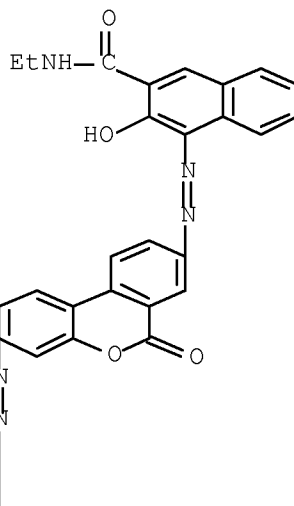
PAGE 1-B



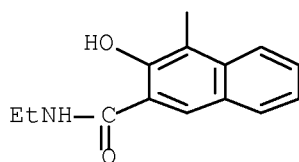
CAS Registry Number  
133878-96-3 CAPLUS

Chemical or Trade Name  
2-Naphthalenecarboxamide, 4,4'-[(6-oxo-6H-dibenzo[b,d]pyran-3,8-diyl)bis(azo)]bis[N-ethyl-3-hydroxy- (9CI) (CA INDEX NAME)

PAGE 1-A



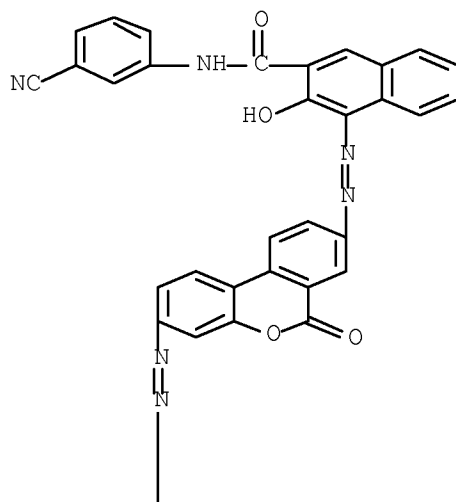
PAGE 2-A



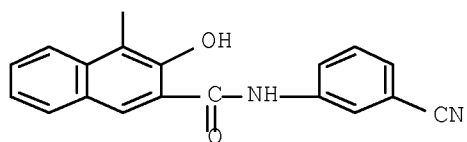
CAS Registry Number  
133878-97-4 CAPLUS

Chemical or Trade Name  
2-Naphthalenecarboxamide, 4,4'-[(6-oxo-6H-dibenzo[b,d]pyran-3,8-diyl)bis(azo)]bis[N-(3-cyanophenyl)-3-hydroxy- (9CI) (CA INDEX NAME)

PAGE 1-A



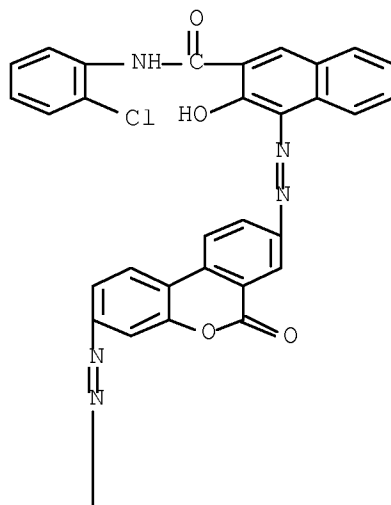
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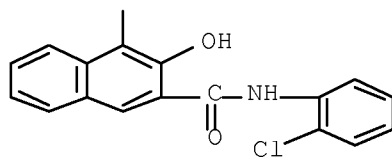
CAS Registry Number  
133878-98-5 CAPLUS

Chemical or Trade Name  
2-Naphthalenecarboxamide, 4,4'-[(6-oxo-6H-dibenzo[b,d]pyran-3,8-diyl)bis(azo)]bis[N-(2-chlorophenyl)-3-hydroxy- (9CI) (CA INDEX NAME)

PAGE 1-A



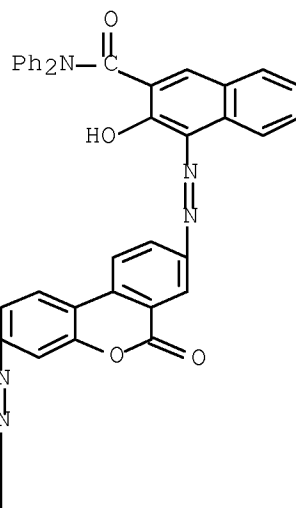
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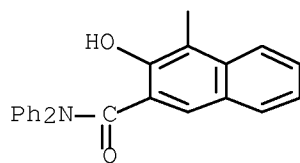
CAS Registry Number  
133878-99-6 CAPLUS

Chemical or Trade Name  
2-Naphthalenecarboxamide, 4,4'-[6-oxo-6H-dibenzo[b,d]pyran-3,8-diyl]bis(azo)bis[3-hydroxy-N,N-diphenyl- (9CI) (CA INDEX NAME)

PAGE 1-A



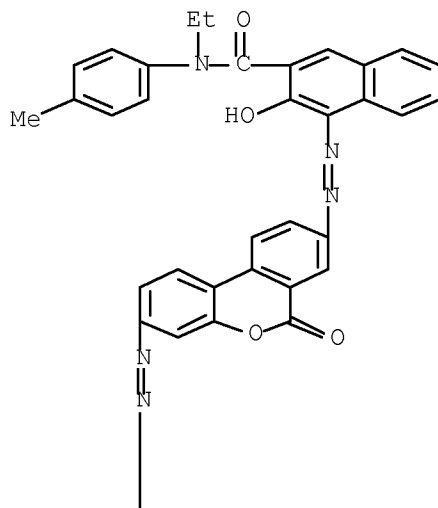
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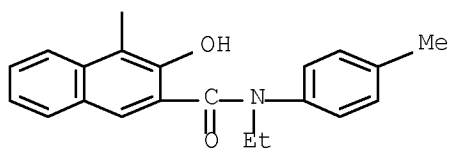
CAS Registry Number  
133879-00-2 CAPLUS

Chemical or Trade Name  
2-Naphthalenecarboxamide, 4,4'-[6-oxo-6H-dibenzo[b,d]pyran-3,8-diyl]bis(azo)bis[N-ethyl-3-hydroxy-N-(4-methylphenyl)- (9CI) (CA INDEX NAME)

PAGE 1-A



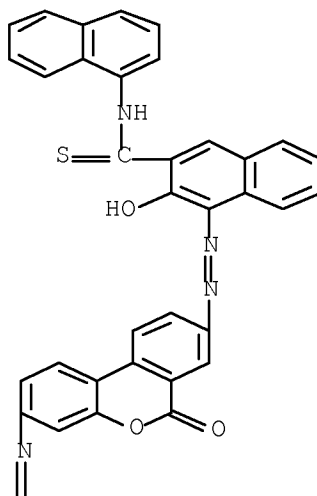
PAGE 2-A

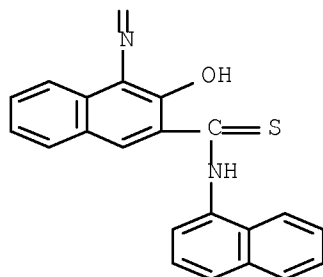


CAS Registry Number  
133879-01-3 CAPLUS

Chemical or Trade Name  
2-Naphthalenecarbothioamide, 4,4'-[[(6-oxo-6H-dibenzo[b,d]pyran-3,8-  
diyl)bis(azo)]bis[3-hydroxy-N-(1-naphthalenyl)- (9CI) (CA INDEX NAME)

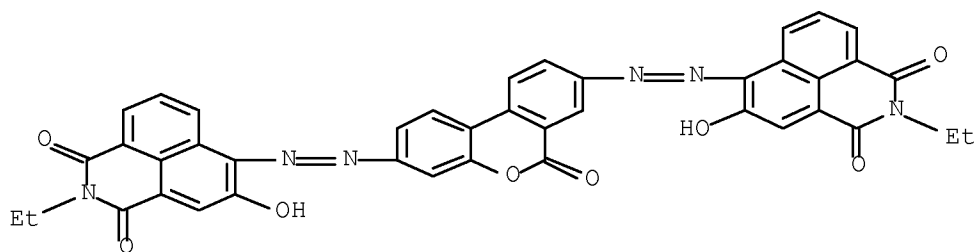
PAGE 1-A





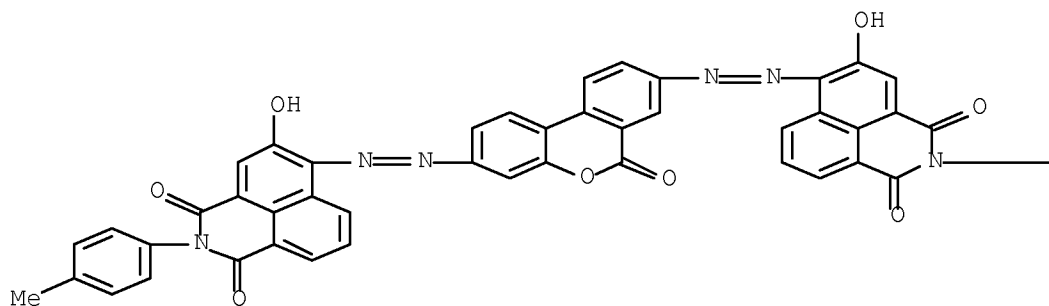
CAS Registry Number  
133879-02-4 CAPLUS

Chemical or Trade Name  
1H-Benz[de]isoquinoline-1,3(2H)-dione,  
6,6'-bis-[(6-oxo-6H-dibenzo[b,d]pyran-3,8-diyl)bis(azo)]bis[2-ethyl-5-hydroxy-  
(9CI)] (CA INDEX NAME)

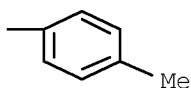


CAS Registry Number  
133879-03-5 CAPLUS

Chemical or Trade Name  
1H-Benz[de]isoquinoline-1,3(2H)-dione,  
6,6'-bis-[(6-oxo-6H-dibenzo[b,d]pyran-3,8-diyl)bis(azo)]bis[5-hydroxy-2-(4-  
methylphenyl)- (9CI)] (CA INDEX NAME)



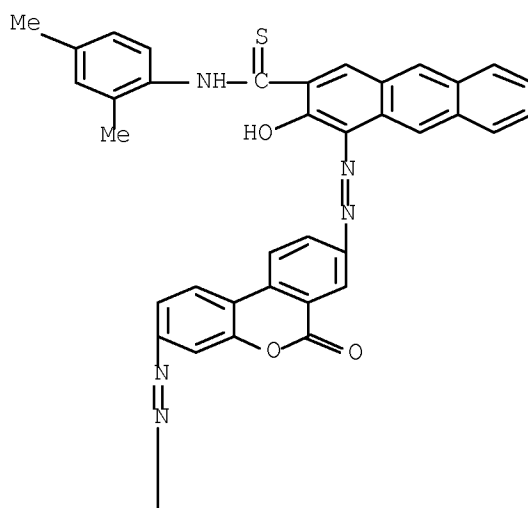
PAGE 1-B



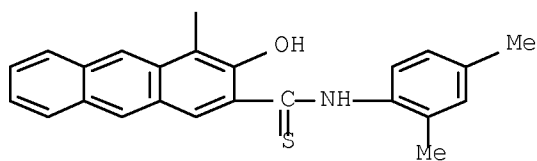
CAS Registry Number  
133879-04-6 CAPLUS

Chemical or Trade Name  
2-Anthracenecarbothioamide, 4,4'-[ (6-oxo-6H-dibenzo[b,d]pyran-3,8-diyl)bis(azo)]bis[N-(2,4-dimethylphenyl)-3-hydroxy- (9CI) (CA INDEX NAME)

PAGE 1-A



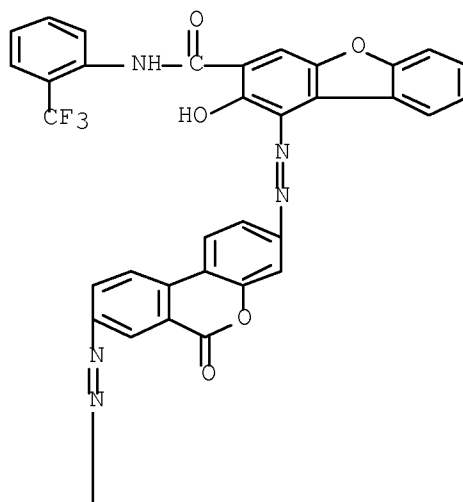
PAGE 2-A



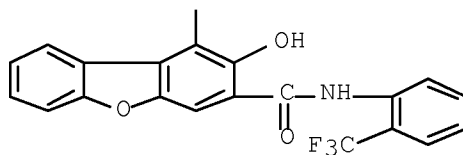
CAS Registry Number  
133879-05-7 CAPLUS

Chemical or Trade Name  
3-Dibenzofurancarboxamide, 1,1'-[ (6-oxo-6H-dibenzo[b,d]pyran-3,8-diyl)bis(azo)]bis[2-hydroxy-N-[2-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)

PAGE 1-A



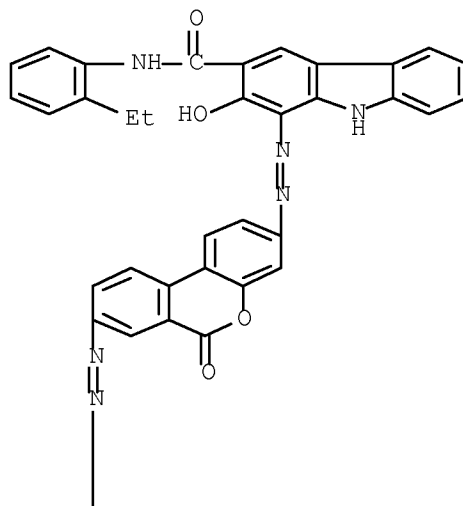
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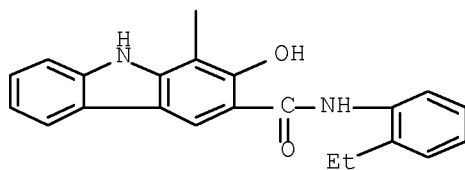
CAS Registry Number  
133879-06-8 CAPLUS

Chemical or Trade Name  
9H-Carbazole-3-carboxamide, 1,1'-[(6-oxo-6H-dibenzo[b,d]pyran-3,8-diyl)bis(azo)]bis[N-(2-ethylphenyl)-2-hydroxy- (9CI) (CA INDEX NAME)

PAGE 1-A



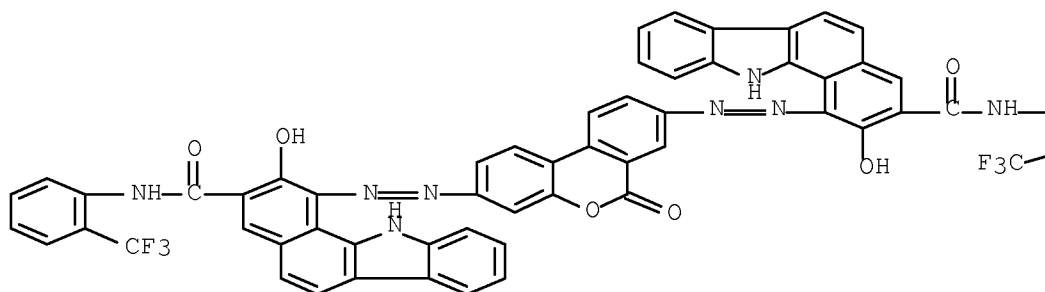
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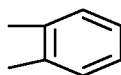
CAS Registry Number  
133879-07-9 CAPLUS

Chemical or Trade Name  
11H-Benzo[a]carbazole-3-carboxamide,  
1,1'-bis(2-hydroxy-N-(2-ethylphenyl)-[6-oxo-6H-dibenzo[b,d]pyran-3,8-diyl]bis(azo))- (9CI) (CA INDEX NAME)

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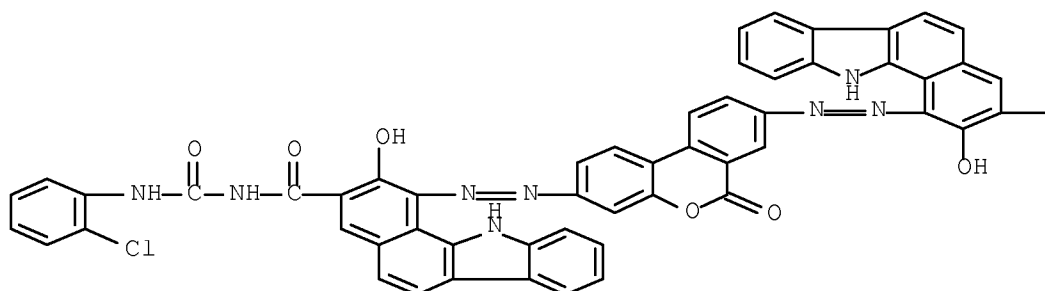
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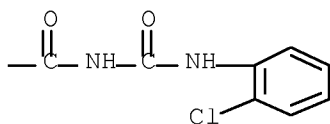


CAS Registry Number  
133879-08-0 CAPLUS

Chemical or Trade Name  
11H-Benzo[a]carbazole-3-carboxamide,  
1,1'-bis(2-hydroxy-N-(2-chlorophenyl)-[6-oxo-6H-dibenzo[b,d]pyran-3,8-diyl]bis(azo))- (9CI) (CA INDEX NAME)

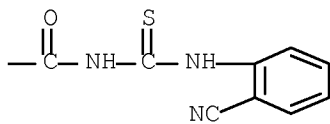
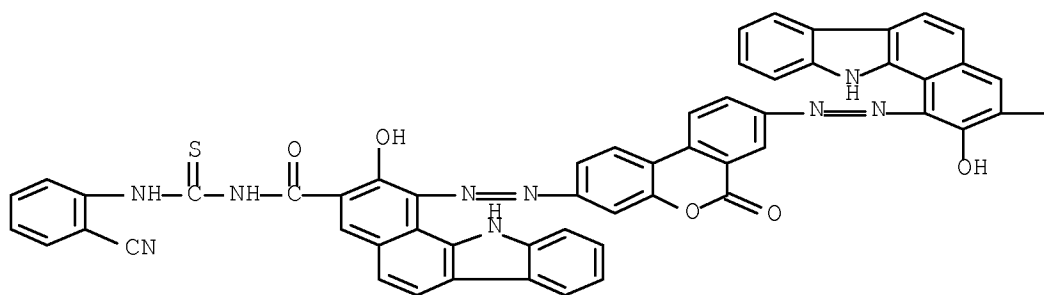
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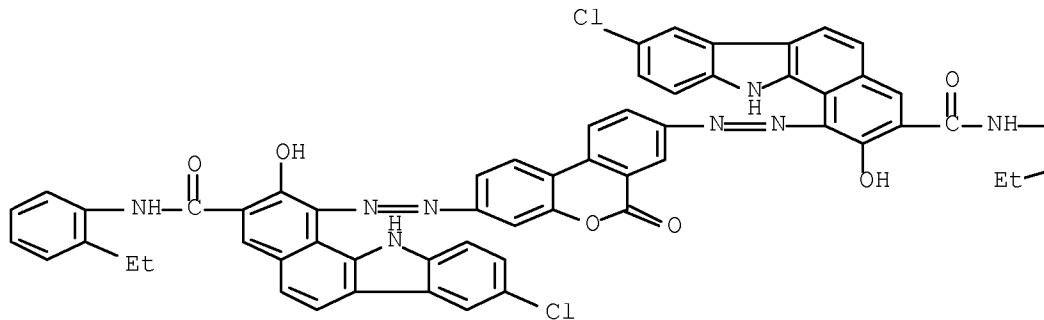
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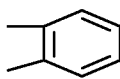
Chemical or Trade Name  
11H-Benzo[a]carbazole-3-carboxamide,  
1,1'-[(6-oxo-6H-dibenzo[b,d]pyran-3,8-diyl)bis(azo)]bis[N-[(2-  
cyanophenyl)amino]thioxomethyl]-2-hydroxy- (9CI) (CA INDEX NAME)



CAS Registry Number  
133879-10-4 CAPLUS

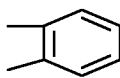
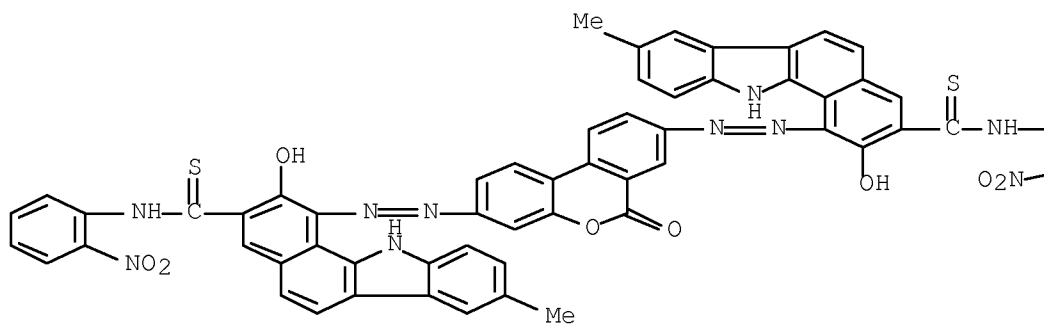
Chemical or Trade Name  
11H-Benzo[a]carbazole-3-carboxamide,  
1,1'-[(6-oxo-6H-dibenzo[b,d]pyran-3,8-diyl)bis(azo)]bis[8-chloro-N-(2-  
ethylphenyl)-2-hydroxy- (9CI) (CA INDEX NAME)





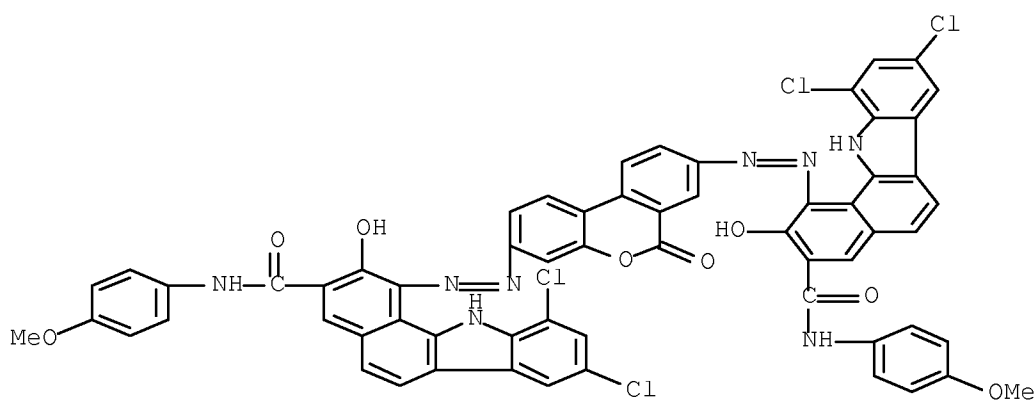
CAS Registry Number  
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Chemical or Trade Name  
11H-Benzo[a]carbazole-3-carbothioamide,  
1,1'-[(6-oxo-6H-dibenzo[b,d]pyran-3,8-diyl)bis(azo)]bis[2-hydroxy-8-methyl-  
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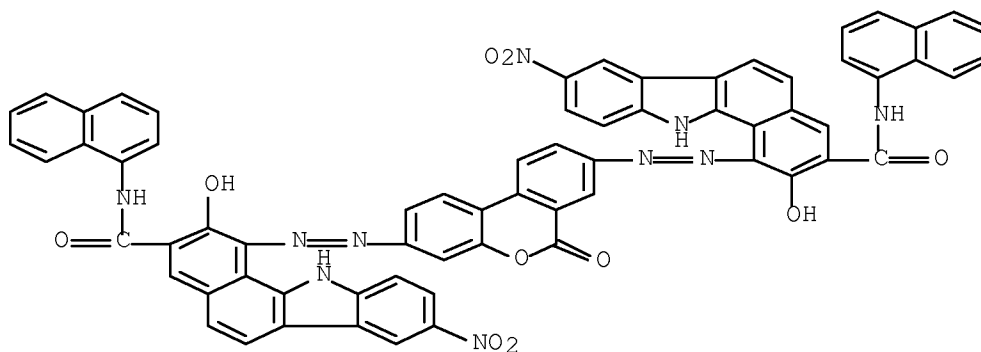
CAS Registry Number  
133879-12-6 CAPLUS

Chemical or Trade Name  
11H-Benzo[a]carbazole-3-carboxamide,  
1,1'-[(6-oxo-6H-dibenzo[b,d]pyran-3,8-diyl)bis(azo)]bis[8,10-dichloro-2-  
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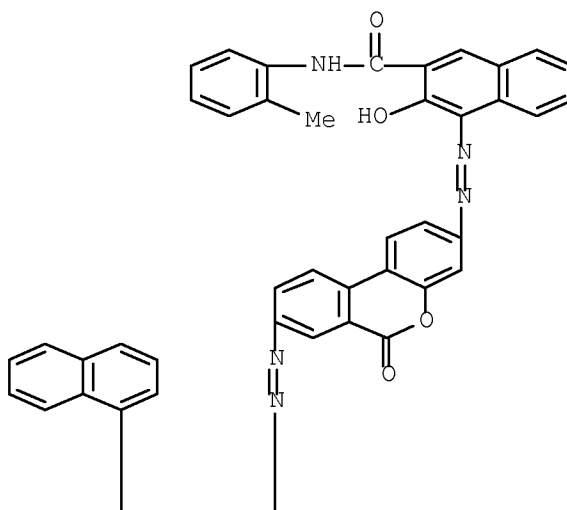
CAS Registry Number  
133879-13-7 CAPLUS

Chemical or Trade Name  
11H-Benzo[a]carbazole-3-carboxamide,  
1,1'-[[(6-oxo-6H-dibenzo[b,d]pyran-3,8-diyl)bis(azo)]bis[2-hydroxy-N-(1-  
naphthalenyl)-8-nitro- (9CI) (CA INDEX NAME)

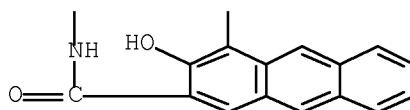


CAS Registry Number  
133879-14-8 CAPLUS

Chemical or Trade Name  
2-Anthracenecarboxamide, 3-hydroxy-4-[2-[3-[2-[2-hydroxy-3-[[[(2-  
methylphenyl)amino]carbonyl]-1-naphthalenyl]diazenyl]-6-oxo-6H-  
dibenzo[b,d]pyran-8-yl]diazenyl]-N-1-naphthalenyl- (CA INDEX NAME)



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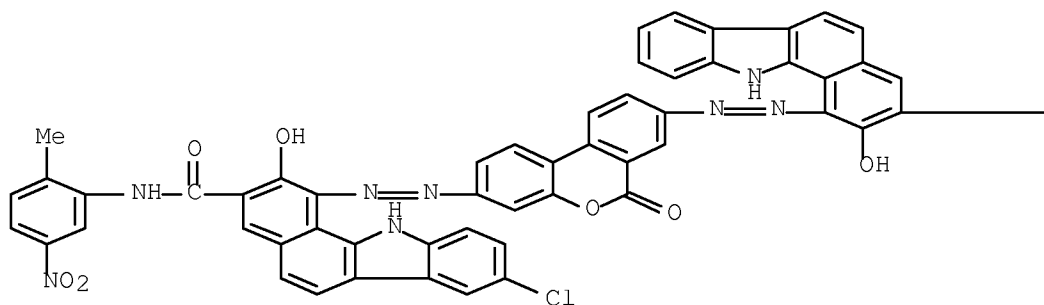


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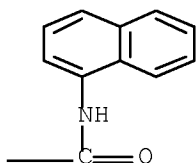
CAS Registry Number  
133879-15-9 CAPLUS

Chemical or Trade Name  
11H-Benzo[a]carbazole-3-carboxamide,  
8-chloro-2-hydroxy-1-[2-[8-[2-[2-hydroxy-3-[[[(1-naphthalenylamino)carbonyl]-  
11H-benzo[a]carbazol-1-yl]diazenyl]-6-oxo-6H-dibenzo[b,d]pyran-3-  
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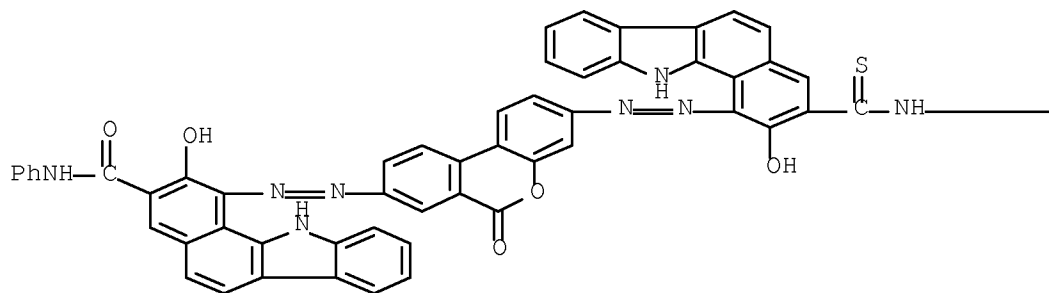
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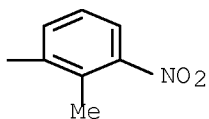
CAS Registry Number  
133879-16-0 CAPLUS

Chemical or Trade Name  
11H-Benzo[a]carbazole-3-carboxamide,  
2-hydroxy-1-[(2-methyl-3-nitrophenyl)amino]thioxomethyl-11H-benzo[a]carbazol-1-yl]diazanyl]-6-oxo-6H-dibenzo[b,d]pyran-8-yl]diazanyl]-N-phenyl- (CA INDEX NAME)

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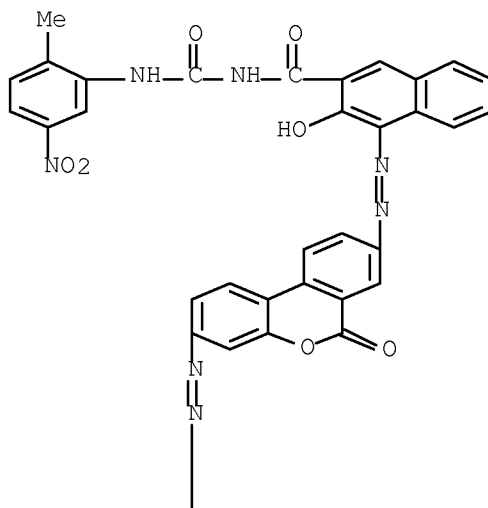
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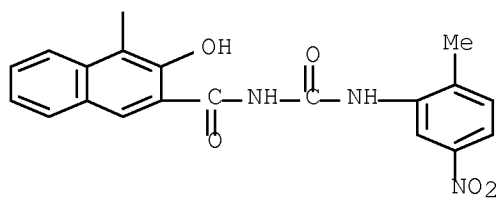
CAS Registry Number  
133897-14-0 CAPLUS

Chemical or Trade Name  
2-Naphthalenecarboxamide, 4,4'-[6-oxo-6H-dibenzo[b,d]pyran-3,8-diyl]bis(azo)]bis[3-hydroxy-N-[(2-methyl-5-nitrophenyl)amino]carbonyl]- (9CI) (CA INDEX NAME)

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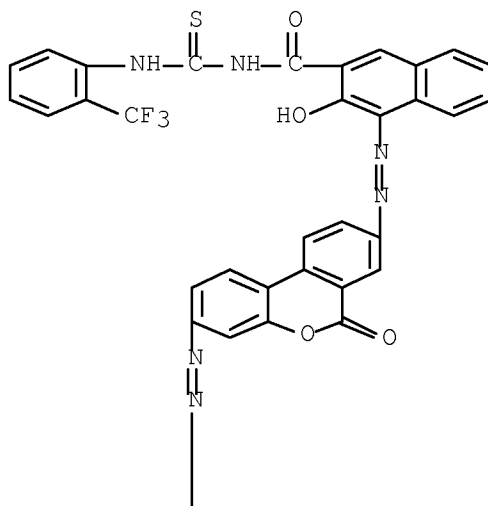
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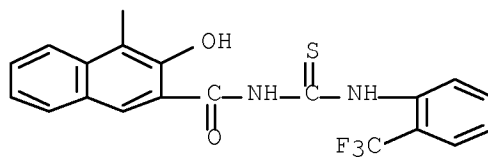
CAS Registry Number  
133897-15-1 CAPLUS

Chemical or Trade Name  
2-Naphthalenecarboxamide, 4,4'-[(6-oxo-6H-dibenzo[b,d]pyran-3,8-diyl)bis(azo)]bis[3-hydroxy-N-[(trifluoromethyl)phenyl]amino]methyl]- (9CI) (CA INDEX NAME)

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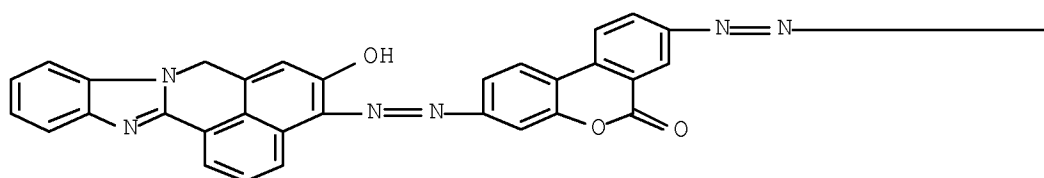


CAS Registry Number  
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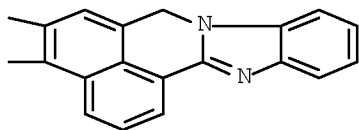
Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3,8-bis[2-(5-hydroxy-7H-benzimidazo[2,1-a]benz[de]isoquinolin-4-yl)diazonyl]- (CA INDEX NAME)

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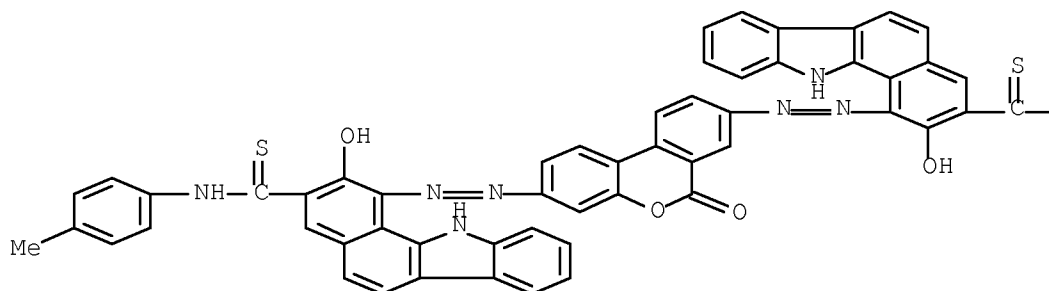
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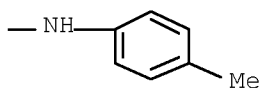


CAS Registry Number  
133897-17-3 CAPLUS

Chemical or Trade Name  
11H-Benzo[a]carbazole-3-carbothioamide, 1,1'-[[(6-oxo-6H-dibenzo[b,d]pyran-3,8-diyl)bis(azo)]bis[2-hydroxy-N-(4-methylphenyl)- (9CI) (CA INDEX NAME)

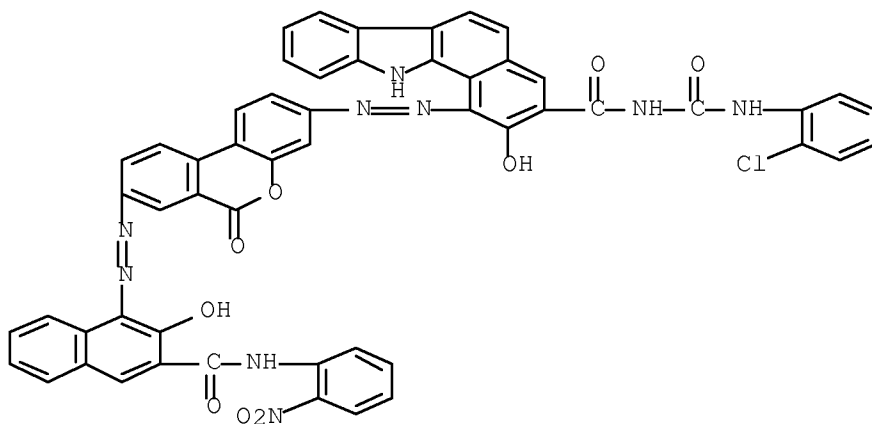
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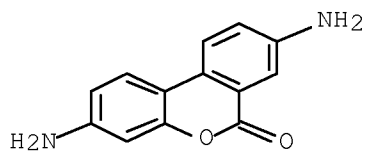
CAS Registry Number  
133897-18-4 CAPLUS

Chemical or Trade Name  
11H-Benzo[a]carbazole-3-carboxamide,  
N-[[[2-chlorophenyl]amino]carbonyl]-2-hydroxy-1-[2-[8-[2-[2-hydroxy-3-[[2-nitrophenyl]amino]carbonyl]-1-naphthalenyl]diazenyl]-6-oxo-6H-dibenzo[b,d]pyran-3-yl]diazenyl]- (CA INDEX NAME)



CAS Registry Number  
108525-86-6 CAPLUS

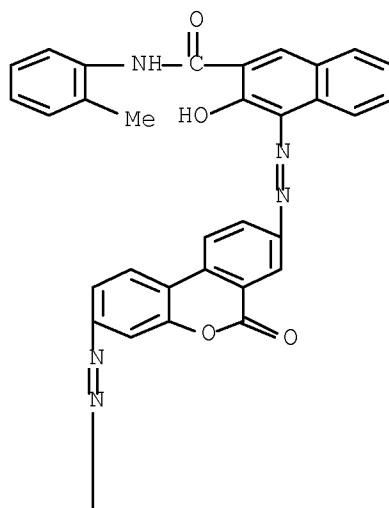
Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3,8-diamino- (CA INDEX NAME)



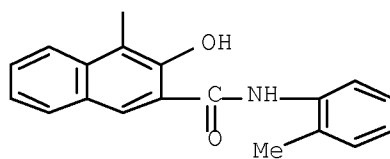
CAS Registry Number  
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Chemical or Trade Name  
2-Naphthalenecarboxamide, 4,4'-[[6-oxo-6H-dibenzo[b,d]pyran-3,8-diyl]bis(azo)]bis[3-hydroxy-N-(2-methylphenyl)- (9CI) (CA INDEX NAME)

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L8 ANSWER 77 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number  
1991:74858 CAPLUS [Full-text](#)

Document Number  
114:74858

Title  
Hydroxylation of  $\Delta^9$ -tetrahydrocannabinol by human peripheral blood monocytes in tissue culture

Author/Inventor  
Wiederhold, Mark D.; Shen, Mei L.; Ou, David W.

Patent Assignee/Corporate Source  
Dep. Pathol., Univ. Illinois, Chicago, IL, USA

Source  
Journal of Pharmaceutical and Biomedical Analysis ( 1990), 8(3), 293-5 CODEN: JPBADA; ISSN: 0731-7085

Document Type  
Journal

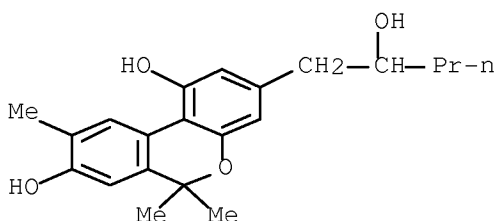
Language  
English

Abstract  
Immunosuppression of immune cells was observed following administration of cannabinoids. The authors are interested in the effects of cannabinoids on monocyte/macrophage functions, since this important cell plays a central role in the modulation of immunol. system. The authors have sought to identify oxidized metabolites of human monocytes to  $\Delta^9$ -tetrahydrocannabinol (d9THC) in vitro. Anal. of metabolites of d9THC revealed a predominance of hydroxylated products. The significance of these products may be related to their ability to act as immuno-regulatory substances.

Hit Structure

CAS Registry Number  
131815-18-4 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-1,8-diol, 3-(2-hydroxypentyl)-6,9-trimethyl- (CA INDEX NAME)



L8 ANSWER 78 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number  
1991:19258 CAPLUS [Full-text](#)

Document Number  
114:19258

Title  
Inhibition of benzo[a]pyrene dihydrodiol epoxide mutagenicity by synthetic analogs of ellagic acid

Author/Inventor  
Josephy, P. David; Lord, Heather L.; Snieckus, Victor A.

Patent Assignee/Corporate Source  
Guelph-Waterloo Cent. Grad. Work Chem., Univ. Guelph, Guelph, ON, N1G 2W1, Can.

Source  
Mutation Research, Genetic Toxicology Testing ( 1990), 242(2), 143-9 CODEN: MRGTE4; ISSN: 0165-1218

Document Type  
Journal

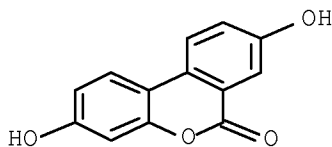
Language  
English

Abstract  
Hydroxylated and methoxylated dibenzo[b,d]pyran-6-one (I) and some other analogs of the natural product ellagic acid were synthesized and examined as inhibitors of benzo[a]pyrenedihydrodiol epoxide (BPDE) mutagenicity in *Salmonella typhimurium* strain TA100. Some of these new compds. have inhibitory effectiveness comparable to the natural product. On the basis of these results, qual. rules are suggested for predicting inhibitory activity of ellagic acid analogs.

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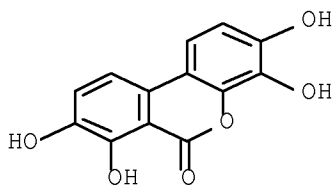
CAS Registry Number  
1143-70-0 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3,8-dihydroxy- (CA INDEX NAME)



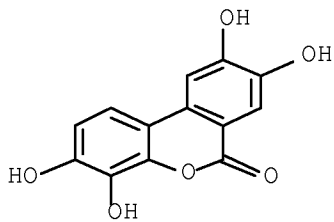
CAS Registry Number  
131086-94-7 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3,4,7,8-tetrahydroxy- (CA INDEX NAME)



CAS Registry Number  
131086-98-1 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3,4,8,9-tetrahydroxy- (CA INDEX NAME)



OS.CITING REF COUNT: 7 THERE ARE 7 CAPLUS RECORDS THAT CITE THIS RECORD  
(7 CITINGS)

.L8 ANSWER 79 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number  
1991:6225 CAPLUS [Full-text](#)

Document Number  
114:6225

Title  
Polar effects in the decomposition of bis(3-alkoxyaryl) peroxides. Synthesis of 8-alkoxy-6H-dibenzo[b,d]pyran-6-ones

Author/Inventor  
Auricchio, Sergio; Citterio, Attilio; Sebastiano, Roberto

Patent Assignee/Corporate Source  
Dip. Chim., Politec. Milano, Milan, 20133, Italy

Source  
Journal of Organic Chemistry (1990), 55(26), 6312-16 CODEN: JOCEAH; ISSN: 0022-3263

Document Type  
Journal

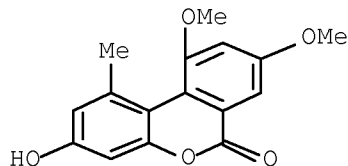
Language  
English

Abstract  
The reaction of 4 substituted bis(3-alkoxybenzoyl) peroxides in neat phenols affords mainly 8-alkoxy-6H-dibenzo[b,d]pyran-6-ones and ortho-benzoyloxylation products of the phenol. E.g., 3,5-(MeO)<sub>2</sub>C<sub>6</sub>H<sub>3</sub>CO<sub>2</sub>OC<sub>6</sub>H<sub>3</sub>(OMe)<sub>2</sub> and 4-MeC<sub>6</sub>H<sub>4</sub>OH give 41% dibenzopyranone I and 28% hydroxyphenyl benzoate II. Diaryl peroxides without electron-releasing meta substituents afford only analogs of II. A mechanism involving monoelectronic oxidation of the phenol by the peroxide and biaryl coupling by preferential addition of the phenol radical cation to the ortho positions to the alkoxy group of the diaryl peroxide is suggested.

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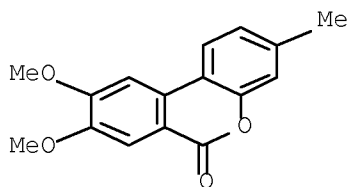
CAS Registry Number  
129194-47-4 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3-hydroxy-8,10-dimethoxy-1-methyl- (CA INDEX NAME)



CAS Registry Number  
129194-49-6 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 8,9-dimethoxy-3-methyl- (CA INDEX NAME)



OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD  
(3 CITINGS)

L8 ANSWER 80 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number

1990:611867 CAPLUS [Full-text](#)

Document Number

113:211867

Title

Method of obtaining brominated aromatic and heterocyclic compounds containing acceptor groups

Author/Inventor

Andrievskii, A. M.; Gorelik, M. V.; Avidon, S. V.; Nikonov, V. V.; Vorozhtsov, G. N.; Linko, R. V.; Chelysheva, O. V.; Poplavskii, A. N.; Dyumaev, K. M.

Patent Assignee/Corporate Source

USSR

Source

PCT Int. Appl., 23 pp. CODEN: PIXXD2

Document Type

Patent

Language

Russian

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9007479	A1	19900712	WO 1989-SU333	19891222
SU 1817764	A3	19930523	SU 1988-4622748	19881230
EP 408759	A1	19910123	EP 1990-901086	19891222
JP 03503174	T	19910718	JP 1990-501832	19891222
CN 1044808	A	19900822	CN 1989-109854	19891230

Abstract

The title compds., useful as antipyretics (no data) and intermediates for dyes, pigments, herbicides, etc., were prepared by bromination of the precursor compds. (aromatic and heterocyclic) (I) with Br (reaction component A) or a bromide salt (A1) in the presence of HNO<sub>3</sub> (B) or a nitrate salt (B1) and H<sub>2</sub>SO<sub>4</sub> or oleum (C) at 20-120°, at the mol. ratio I:(A or A1):(B or B1):C = 1:(0.5-3.2 or 1.0-7.0):(0.5-3.0 or 1.0-4.0):(6.0-70.0). Thus, Br was added to a solution of 3,8-dinitro-6H-dibenzo[b,d]pyran-6-one (II) in H<sub>2</sub>SO<sub>4</sub> and stirred 1 h at room temperature. HNO<sub>3</sub> was added and the resulting mixture, having a mol ratio o II:Br:HNO<sub>3</sub>:H<sub>2</sub>SO<sub>4</sub> = 1:2.3:2.8:70.0, was stirred 4 h at 35-40° to give 90.4 weight% dibenzopyranone III.

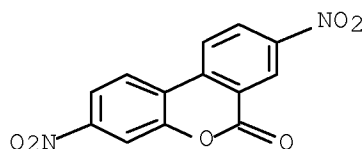
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CAS Registry Number

63636-78-2 CAPLUS

Chemical or Trade Name

6H-Dibenzo[b,d]pyran-6-one, 3,8-dinitro- (CA INDEX NAME)

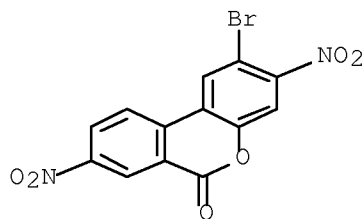


CAS Registry Number

130373-61-4 CAPLUS

Chemical or Trade Name

6H-Dibenzo[b,d]pyran-6-one, 2-bromo-3,8-dinitro- (CA INDEX NAME)



OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD  
(2 CITINGS)

.L8 ANSWER 81 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number  
1990:511005 CAPLUS [Full-text](#)

Document Number  
113:111005

Title  
Mechanism of reaction of 3-hydroxyanthranilic acid with molecular oxygen

Author/Inventor  
Manthey, Michael K.; Pyne, Stephen G.; Truscott, Roger J. W.

Patent Assignee/Corporate Source  
Dep. Chem., Univ. Wollongong, Wollongong, 2500, Australia

Source  
Biochimica et Biophysica Acta, General Subjects ( 1990), 1034(2), 207-12 CODEN: BBGUSB; ISSN: 0304-4165

Document Type  
Journal

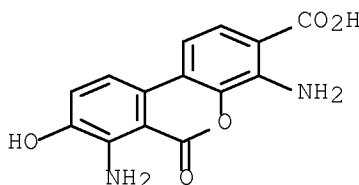
Language  
English

Abstract  
The autoxidn. of the tryptophan metabolite 3-hydroxyanthranilic acid at pH 7 gives rise to a p-quinone dimer and cinnabarinic acid. A novel dimer formed by radical-radical coupling of 3-hydroxyanthranilic acid is also produced. Labeling studies have shown that the C-2 O in the p-quinone dimer is derived from mol. O. A product vs. time study of this reaction has revealed that, in the absence of catalase, cinnabarinic acid is formed but undergoes decomposition by H<sub>2</sub>O<sub>2</sub>. At pH 7, in the presence of catalase, both the p-quinone dimer and cinnabarinic acid are formed at approx. the same rate and this rate of formation increases with increasing pH. Inclusion of superoxide dismutase was found to increase the rate of formation of cinnabarinic acid, suggesting that superoxide ions may also cause decomposition of cinnabarinic acid. This was confirmed by treating cinnabarinic acid with superoxide. A mechanism involving a common anthranilyl radical intermediate is proposed to account for the formation of the different oxidation products.

Hit Structure

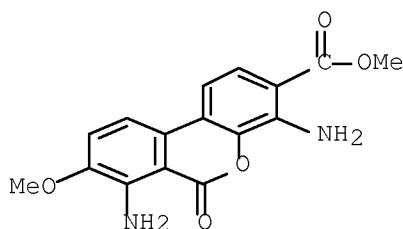
CAS Registry Number  
129085-80-9 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-3-carboxylic acid, 4,7-diamino-8-hydroxy-6-oxo- (CA INDEX NAME)



CAS Registry Number  
129085-81-0 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-3-carboxylic acid, 4,7-diamino-8-methoxy-6-oxo-, methyl ester (CA INDEX NAME)



OS.CITING REF COUNT: 17 THERE ARE 17 CAPLUS RECORDS THAT CITE THIS RECORD (17 CITINGS)

.L8 ANSWER 82 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number  
1990:452222 CAPLUS [Full-text](#)

Document Number  
113:52222

Title  
Shilajit. 5. Mast cell protecting effects of shilajit and its constituents

Author/Inventor  
Ghosal, Shibnath; Lal, Jawahar; Singh, Sushil K.; Dasgupta, Gautam; Bhaduri, Joydeep; Mukhopadhyay, Mita; Bhattacharya, Salil K.

Patent Assignee/Corporate Source  
Inst. Technol., Banaras Hindu Univ., Varanasi, 221005, India

Source  
Phytotherapy Research (1989), 3(6), 249-52 CODEN: PHYREH; ISSN: 0951-418X

Document Type  
Journal

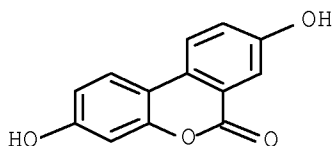
Language  
English

Abstract  
The effects of shilajit and the combined effects of its main constituents, fulvic acids (FAs), 4'-methoxy-6-carbomethoxybiphenyl (MCB) and 3,5-dihydroxydibenzo- $\alpha$ -pyrone (DDP), were studied in relation to the degranulation and disruption of mast cells by noxious stimuli. Shilajit and different combinations of FAs, MCB and DDP provided protection against antigen-induced degranulation of sensitized rat mast cells, markedly inhibited the antigen-induced spasm of sensitized guinea pig ileum (anaphylaxis) and prevented rat mast cell disruption by compound 48/80. The findings are appraised in view of the clin. use of shilajit in the treatment of allergic disorders in Ayurvedic medicine.

Hit Structure

CAS Registry Number  
1143-70-0 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3,8-dihydroxy- (CA INDEX NAME)



OS.CITING REF COUNT: 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD  
(4 CITINGS)

.L8 ANSWER 83 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number 1990:424296 CAPLUS [Full-text](#)

Document Number 113:24296

Title Deaminocolchinyll methyl ether: synthesis from 2,3,4,4'-tetramethoxybiphenyl-2-carbaldehyde. Comparison of antitubulin effects of deaminocolchinyll methyl ether and dehydro analogs

Author/Inventor Boye, Olivier; Itoh, Yoshikuni; Brossi, Arnold

Patent Assignee/Corporate Source NIDDK, NIH, Bethesda, MD, 20892, USA

Source Helvetica Chimica Acta (1989), 72(8), 1690-6 CODEN: HCACAV; ISSN: 0018-019X

Document Type Journal

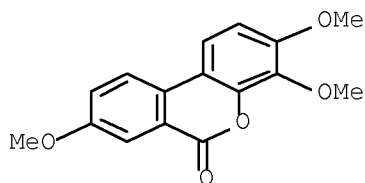
Language English

Abstract Synthesis of deaminocolchinyll Me ether (I, X = H<sub>2</sub>) was achieved from the corresponding tetramethoxy-substituted biphenyl-2-carboxaldehyde via tricyclic ketone I (X = O) and 5,6-didehydro congener II. I (X = H<sub>2</sub>) was identical in every respect with material prepared from colchicine via the 6,7-didehydro congener. Measuring inhibition of tubulin polymerization in vitro showed the alloseries of colchicinoids, e.g. I (X = H<sub>2</sub>) and II, to be potent inhibitors.

Hit Structure

CAS Registry Number 127825-91-6 CAPLUS

Chemical or Trade Name 6H-Dibenzo[b,d]pyran-6-one, 3,4,8-trimethoxy- (CA INDEX NAME)



OS.CITING REF COUNT: 17 THERE ARE 17 CAPLUS RECORDS THAT CITE THIS RECORD (17 CITINGS)

.L8 ANSWER 84 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number 1990:188952 CAPLUS [Full-text](#)

Document Number 112:188952

Title Electrophotographic photoreceptor with photoconductive layer containing polyazo pigment

Author/Inventor Ueda, Hideaki

Patent Assignee/Corporate Source Minolta Camera Co., Ltd., Japan

Source Jpn. Kokai Tokkyo Koho, 13 pp. CODEN: JKXXAF

Document Type Patent

Language Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 01211767	A	19890824	JP 1988-37893	19880219

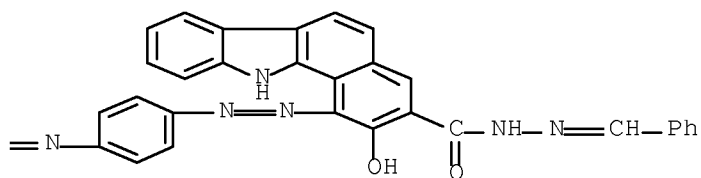
Abstract In the title photoreceptor, the photoconductive layer contains a polyazo pigment of the formula CpN:NAr<sub>1</sub>N:NAr<sub>2</sub>N:NCp [A = aromatic heterocyclic ring (excluding a fluorene ring) having a carbonyl group; Ar<sub>1</sub>, Ar<sub>2</sub> = aryl; Cp = coupler moiety with phenolic OH]. The photoreceptor shows improved sensitivity and durability.

Hit Structure

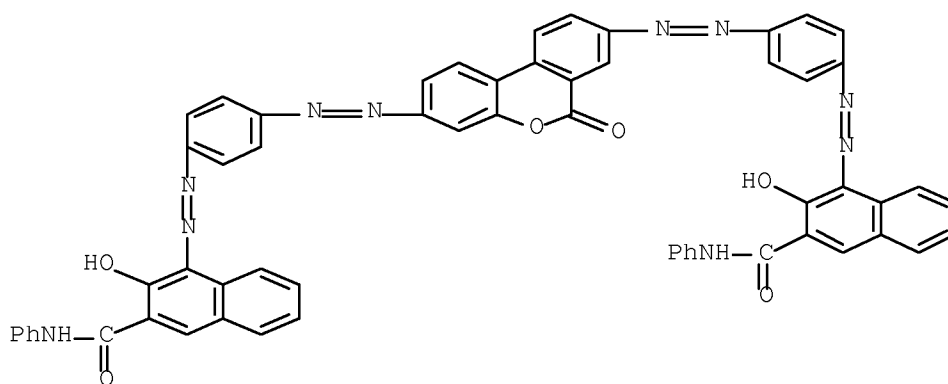
CAS Registry Number 126022-25-1 CAPLUS

Chemical or Trade Name 11H-Benzo[a]carbazole-3-carboxylic acid, 1,1'-[(6-oxo-6H-dibenzo[b,d]pyran-3,8-diyl)bis[azo(fluoro-4,1-phenylene)azo]]bis[2-hydroxy-, bis[(phenylmethylene)hydrazide] (9CI) (CA INDEX NAME)

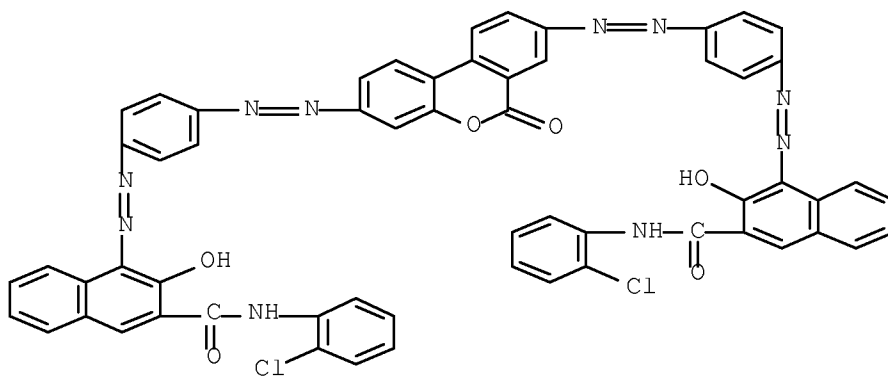
PAGE 1-B



Chemical or Trade Name  
2-Naphthalenecarboxamide, 4,4'-[(6-oxo-6H-dibenzo[b,d]pyran-3,8-  
diyl)bis(azo-4,1-phenyleneazo)]bis[3-hydroxy-N-phenyl- (9CI) (CA INDEX  
NAME)



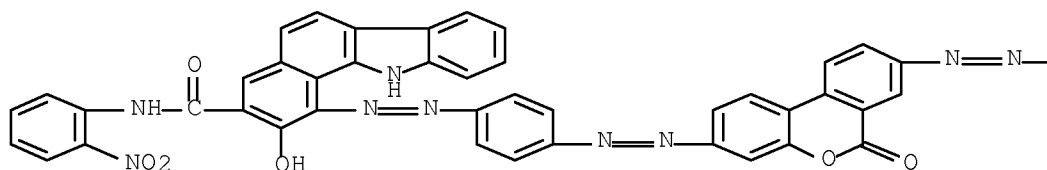
Chemical or Trade Name  
2-Naphthalenecarboxamide, 4,4'-[(6-oxo-6H-dibenzo[b,d]pyran-3,8-diyl)bis(azo-4,1-phenyleneazo)]bis[N-(2-chlorophenyl)-3-hydroxy- (9CI)  
(CA INDEX NAME)



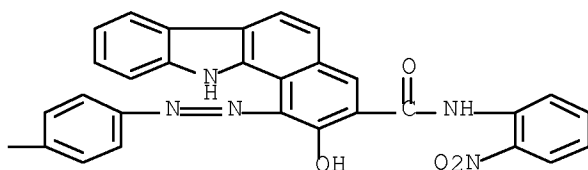
CAS Registry Number  
126167-86-0 CAPLUS

Chemical or Trade Name  
11H-Benzo[a]carbazole-3-carboxamide,  
1,1'-bis-[(6-oxo-6H-dibenzo[b,d]pyran-3,8-diyl)bis(azo-4,1-phenyleneazo)]bis[2-  
hydroxy-N-(2-nitrophenyl)- (9CI) (CA INDEX NAME)

PAGE 1-A



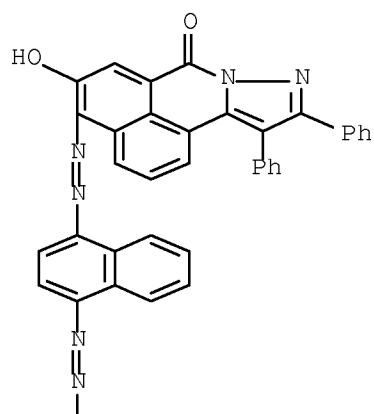
PAGE 1-B



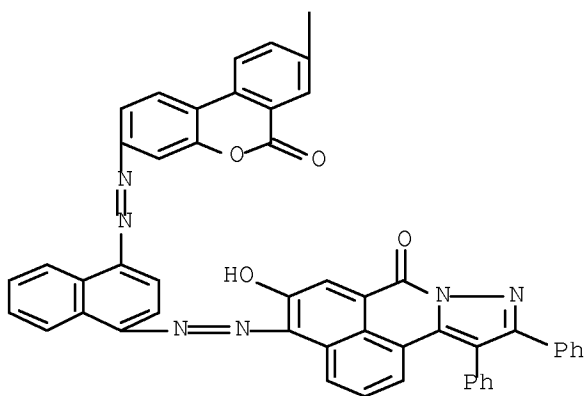
CAS Registry Number  
126167-87-1 CAPLUS

Chemical or Trade Name  
7H-Benzo[de]pyrazolo[5,1-a]isoquinolin-7-one,  
4,4'-bis-[(6-oxo-6H-dibenzo[b,d]pyran-3,8-diyl)bis(azo-4,1-  
naphthalenediylazo)]bis[5-hydroxy-10,11-diphenyl- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



\_L8 ANSWER 85 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number

1990:178673 CAPLUS [Full-text](#)

Document Number

112:178673

Title

Preparation of 6H-dibenzo[b,d]pyran-6-one derivatives as aldose reductase inhibitors

Author/Inventor

Nakayama, Hajime; Ishikura, Masatoshi; Ueda, Yutaka; Imai, Kunihiro; Terajima, Megumi; Suzui, Akio

Patent Assignee/Corporate Source

Toyo Pharmar Co., Ltd., Japan; Daiso Co., Ltd.

Source

Jpn. Kokai Tokkyo Koho, 8 pp. CODEN: JKXXAF

Document Type

Patent

Language

Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 01250373	A	19891005	JP 1988-80610	19880331

Abstract

The title compds. [I; R1-R8 = H, alkyl, alkoxy, OSO<sub>3</sub>M wherein M = H, alkali metal, NH<sub>4</sub>; OP(O)(OM)<sub>2</sub>, OCH<sub>2</sub>CO<sub>2</sub>M], useful as aldose reductase inhibitors in treating diabetes complications, are prepared. CISO<sub>3</sub>H (0.02 mol) was added to anhydrous pyridine under cooling, 0.01 mol 3-hydroxy derivative I (R<sub>3</sub> = OH, others = H) was added, and the solution refluxed, concentrated, cooled, and treated with KOH to pH 8 to give 1.95 g sulfonate salt I (R<sub>3</sub> = OSO<sub>3</sub>K, others = H). Similarly prepared were 18 addnl. I which showed 50-98% inhibition of aldose reductase at 1 + 10<sup>-6</sup> M by the Kadoa method.

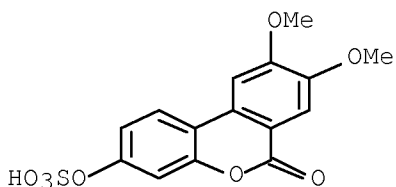
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CAS Registry Number

126438-40-2 CAPLUS

Chemical or Trade Name

6H-Dibenzo[b,d]pyran-6-one, 8,9-dimethoxy-3-(sulfooxy)-, potassium salt (1:1) (CA INDEX NAME)



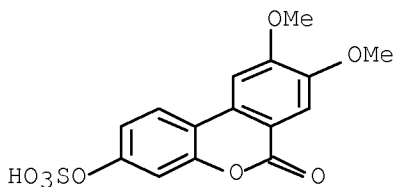
● K

CAS Registry Number

126438-41-3 CAPLUS

Chemical or Trade Name

6H-Dibenzo[b,d]pyran-6-one, 8,9-dimethoxy-3-(sulfooxy)-, sodium salt (1:1) (CA INDEX NAME)



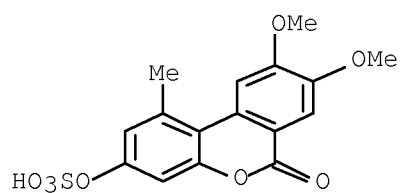
● Na

CAS Registry Number

126438-42-4 CAPLUS

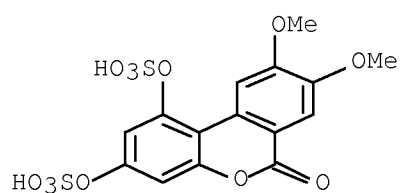
Chemical or Trade Name

6H-Dibenzo[b,d]pyran-6-one, 8,9-dimethoxy-1-methyl-3-(sulfooxy)-, potassium salt (1:1) (CA INDEX NAME)



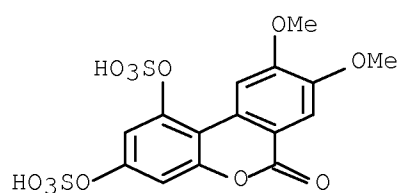
CAS Registry Number  
126438-43-5 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 8,9-dimethoxy-1,3-bis(sulfooxy)-, potassium  
salt (1:2) (CA INDEX NAME)



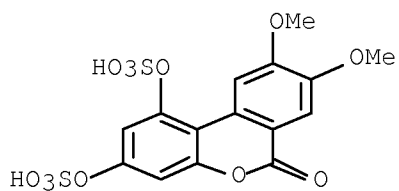
CAS Registry Number  
126438-44-6 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 8,9-dimethoxy-1,3-bis(sulfooxy)-, sodium salt  
(1:2) (CA INDEX NAME)



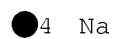
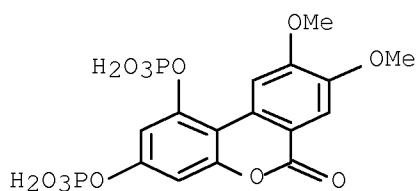
CAS Registry Number  
126438-45-7 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 8,9-dimethoxy-1,3-bis(sulfooxy)-, monoammonium  
salt (9CI) (CA INDEX NAME)



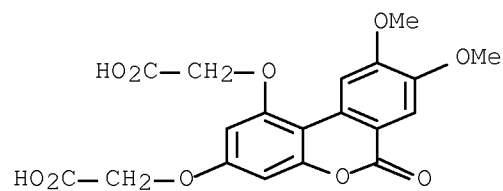
CAS Registry Number  
126438-46-8 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 8,9-dimethoxy-1,3-bis(phosphonoxy)-, sodium salt (1:4) (CA INDEX NAME)



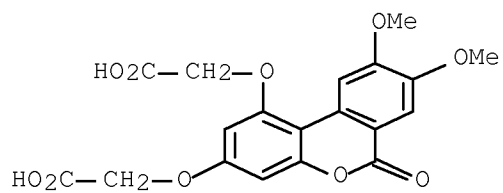
CAS Registry Number  
126438-47-9 CAPLUS

Chemical or Trade Name  
Acetic acid, 2,2'-[(8,9-dimethoxy-6-oxo-6H-dibenzo[b,d]pyran-1,3-diyl)bis(oxy)]bis- (9CI) (CA INDEX NAME)



CAS Registry Number  
126438-48-0 CAPLUS

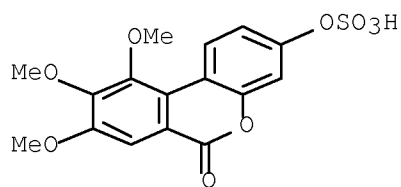
Chemical or Trade Name  
Acetic acid, 2,2'-[(8,9-dimethoxy-6-oxo-6H-dibenzo[b,d]pyran-1,3-diyl)bis(oxy)]bis-, disodium salt (9CI) (CA INDEX NAME)



● 2 Na

CAS Registry Number  
126438-49-1 CAPLUS

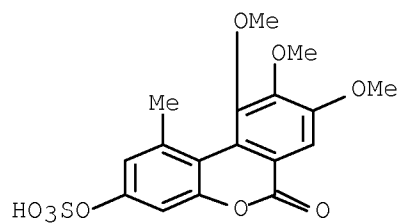
Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 8,9,10-trimethoxy-3-(sulfooxy)-, potassium salt (1:1) (CA INDEX NAME)



● K

CAS Registry Number  
126438-50-4 CAPLUS

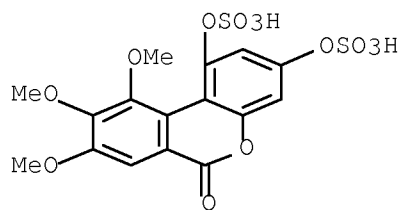
Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 8,9,10-trimethoxy-1-methyl-3-(sulfooxy)-, potassium salt (1:1) (CA INDEX NAME)



● K

CAS Registry Number  
126438-51-5 CAPLUS

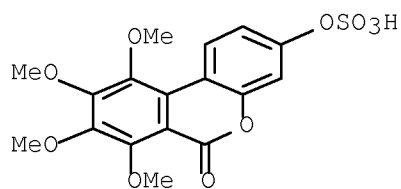
Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 8,9,10-trimethoxy-1,3-bis(sulfooxy)-, potassium salt (1:2) (CA INDEX NAME)



● 2 K

CAS Registry Number  
126438-52-6 CAPLUS

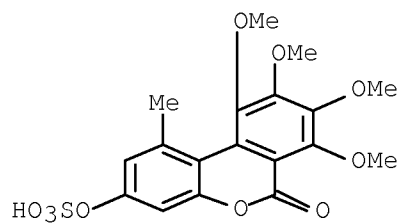
Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 7,8,9,10-tetramethoxy-3-(sulfooxy)-, potassium salt (1:1) (CA INDEX NAME)



● K

CAS Registry Number  
126438-53-7 CAPLUS

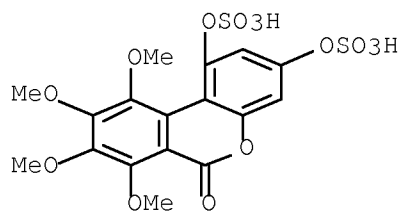
Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 7,8,9,10-tetramethoxy-1-methyl-3-(sulfooxy)-, potassium salt (1:1) (CA INDEX NAME)



● K

CAS Registry Number  
126438-54-8 CAPLUS

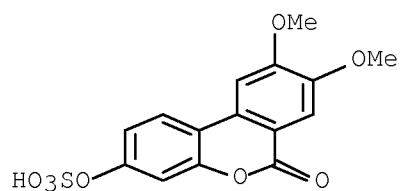
Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 7,8,9,10-tetramethoxy-1,3-bis(sulfooxy)-, potassium salt (1:2) (CA INDEX NAME)



● 2 K

CAS Registry Number  
126470-14-2 CAPLUS

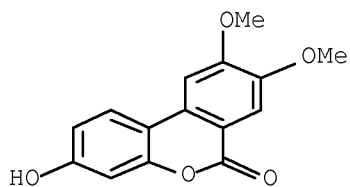
Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 8,9-dimethoxy-3-(sulfooxy)-, ammonium salt  
(9CI) (CA INDEX NAME)



● NH3

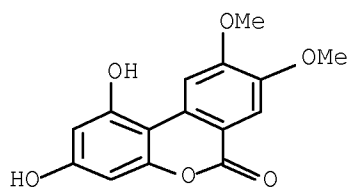
CAS Registry Number  
126438-35-5 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3-hydroxy-8,9-dimethoxy- (CA INDEX NAME)



CAS Registry Number  
126438-36-6 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 1,3-dihydroxy-8,9-dimethoxy- (CA INDEX NAME)



OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD  
(8 CITINGS)

1990:164804 CAPLUS [Full-text](#)

Document Number

112:164804

Title

Shilajit. Part 4. Chemistry of two bioactive benzopyrone metabolites

Author/Inventor

Ghosal, Shibnath; Lal, Jawahar; Singh, Sushil K.; Kumar, Yatendra; Soti, Ferenc

Patent Assignee/Corporate Source

Dep. Pharm., Banaras Hindu Univ., Varanasi, 221005, India

Source

Journal of Chemical Research, Synopses (1989 ), (11), 350-1 CODEN: JRPSDC; ISSN: 0308-2342

Document Type

Journal

Language

English

Abstract

The reactive benzopyrone (I) was isolated from Shilajit (an organic exidation from steep rocks) and auto-oxidized to 3-hydroxydibenzo- $\alpha$ -pyrone and II on exposure to light and air. II was synthesized from 2-bromo-5-methoxybenzoic acid and resorcinol with demethylation of the resulting 3-hydroxy-8-methoxydibenzopyrone. Both I and II (20 mg/kg orally for 3 days) showed augmentation of swimming endurance in rats and also showed immunomodulating effects.

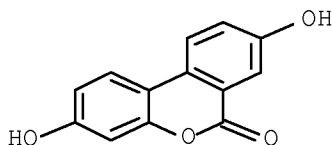
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CAS Registry Number

1143-70-0 CAPLUS

Chemical or Trade Name

6H-Dibenzo[b,d]pyran-6-one, 3,8-dihydroxy- (CA INDEX NAME)

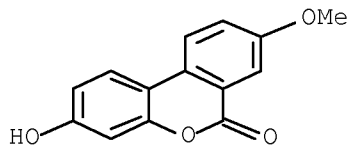


CAS Registry Number

35233-17-1 CAPLUS

Chemical or Trade Name

6H-Dibenzo[b,d]pyran-6-one, 3-hydroxy-8-methoxy- (CA INDEX NAME)



OS.CITING REF COUNT: 8

THERE ARE 8 CAPLUS RECORDS THAT CITE THIS RECORD  
(8 CITINGS)

.L8 ANSWER 87 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number

1990:149041 CAPLUS [Full-text](#)

Document Number

112:149041

Title

Electrostatographic photoconductors

Author/Inventor

Ueda, Hideaki

Patent Assignee/Corporate Source

Minolta Camera Co., Ltd., Japan

Source

Jpn. Kokai Tokkyo Koho, 12 pp. CODEN: JKXXAF

Document Type

Patent

Language

Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 01235958	A	19890920	JP 1988-64517	19880316

Abstract

Photosensitive layer of the title photoconductors contain azo pigments CpN:NaN:NAr1N:NCp (A = carbonyl-containing aromatic heterocyclene except fluorenylene; Ar1 = arylene; Cp = coupler group having phenolic OH). These photoconductors provide high electrostatg. performance and high sensitivity in longer wavelengths. Thus, an Al-coated Mylar film was coated with a charge carrier- generating layer containing I and polyester, and a charge carrier-transporting layer containing p-diphenylaminobenzadehyde N,N-diphenylhydrazone and polycarbonate, showed sensitivity (irradiation dose required for half decay of charged voltage) 3.5 lx-s.

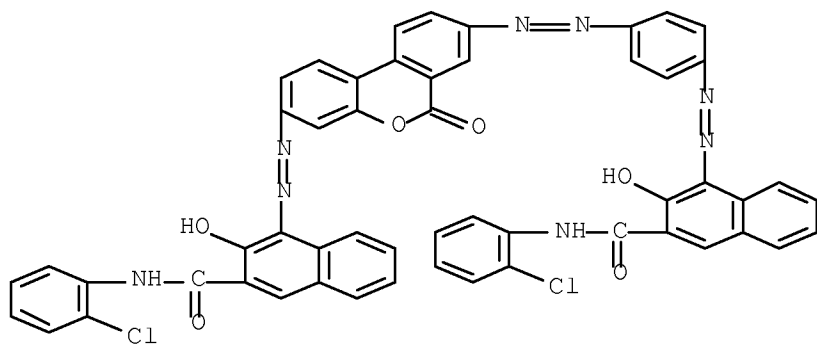
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CAS Registry Number

125834-88-0 CAPLUS

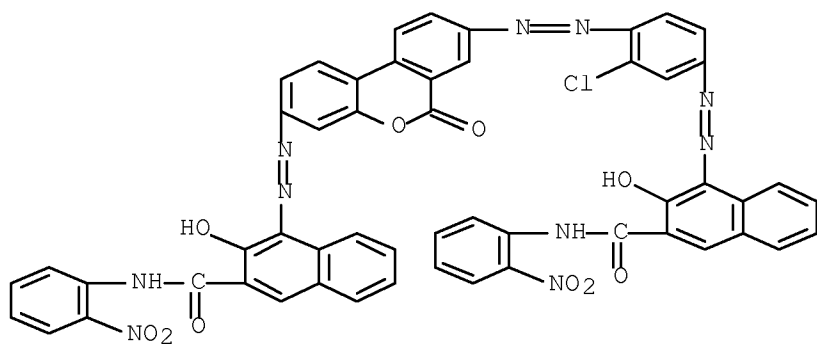
Chemical or Trade Name

2-Naphthalenecarboxamide, N-(2-chlorophenyl)-4-[[4-[[3-[[[3-[[2-chlorophenyl]amino]carbonyl]-2-hydroxy-1-naphthalenyl]azo]-6-oxo-6H-dibenzo[b,d]pyran-8-yl]azo]phenyl]azo]-3-hydroxy- (9CI) (CA INDEX NAME)



CAS Registry Number  
125834-89-1 CAPLUS

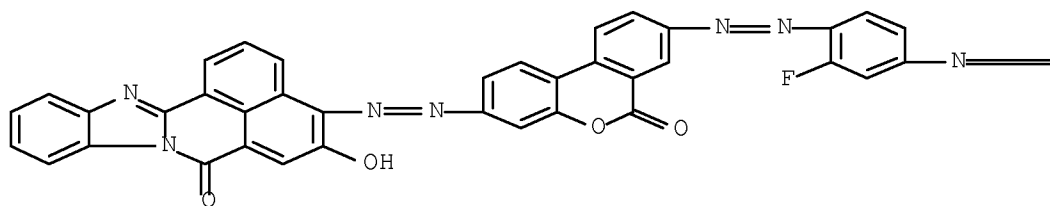
Chemical or Trade Name  
2-Naphthalenecarboxamide, 4-[[3-chloro-4-[[3-[[2-hydroxy-3-[[2-(2-nitrophenyl)amino]carbonyl]-1-naphthalenyl]azo]-6-oxo-6H-dibenzo[b,d]pyran-8-yl]azo]phenyl]azo]-3-hydroxy-N-(2-nitrophenyl)- (9CI) (CA INDEX NAME)



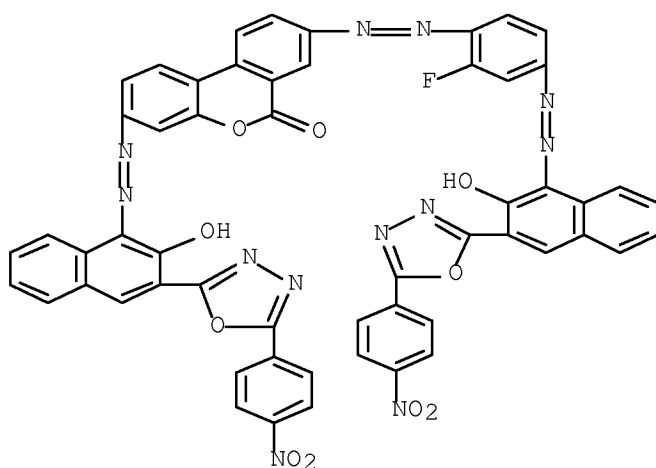
CAS Registry Number  
125834-90-4 CAPLUS

Chemical or Trade Name  
7H-Benzimidazo[2,1-a]benz[de]isoquinolin-7-one, 4-[[3-fluoro-4-[[3-[[5-hydroxy-7-oxo-7H-benzimidazo[2,1-a]benz[de]isoquinolin-4-yl]azo]-6-oxo-6H-dibenzo[b,d]pyran-8-yl]azo]phenyl]azo]-5-hydroxy- (9CI) (CA INDEX NAME)

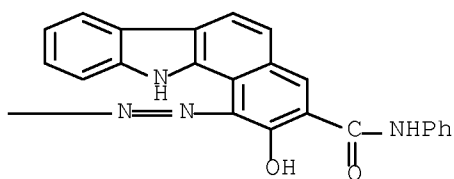
PAGE 1-A



Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 8-[2-[2-fluoro-4-[2-[2-hydroxy-3-[5-(4-nitrophenyl)-1,3,4-oxadiazol-2-yl]-1-naphthalenyl]diazenyl]phenyl]diazenyl]-3-[2-[2-hydroxy-3-[5-(4-nitrophenyl)-1,3,4-oxadiazol-2-yl]-1-naphthalenyl]diazenyl]- (CA INDEX NAME)



Chemical or Trade Name  
11H-Benzo[a]carbazole-3-carboxamide,  
1-[[2-chloro-4-[[3-[[2-hydroxy-3-(phenylamino)carbonyl]-11H-  
benzo[a]carbazol-1-yl]azo]-6-oxo-6H-dibenzo[b,d]pyran-8-yl]azo]phenyl]azo]-  
2-hydroxy-N-phenyl- (9CI) (CA INDEX NAME)



L8 ANSWER 88 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number

1990-98988 CAPLUS [Fuji-text](#)

Document Number

112:98988

Title

Bicornin, a new hydrolyzable tannin from *Trapa bicornis*, and revised structure of alnusiin

Author/Inventor

Yoshida, Takashi; Yazaki, Kazufumi; Memon, M. Usman; Maruyama, Izumi; Kurokawa, Kenji; Okuda, Takuo

Patent Assignee/Corporate Source

Fac. Pharm. Sci., Okayama Univ., Tsushima, 700, Japan

Source

Heterocycles (1989), 29(5), 861-4 CODEN: HTCYAM; ISSN: 0385-5414

Document Type

Journal

Language

English

Abstract

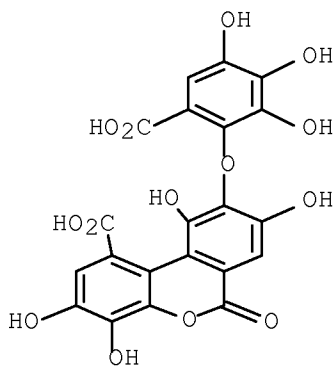
The structure of alnusiin, a hydrolyzable tannin isolated from *Alnus sieboldiana*, was revised to I based on the <sup>1</sup>H-<sup>13</sup>C long-range shift correlation spectroscopy. Bicornin II; R = 3,4,5-(HO)<sub>3</sub>C<sub>6</sub>H<sub>2</sub>CO), a new tannin, was isolated from *Trapa bicornis* and its structure related to alnusiin was determined

Hit Structure

CAS Registry Number  
124854-13-3 CAPLUS

Chemical or Trade Name

6H-Dibenzo[b,d]pyran-1-carboxylic acid,  
9-(6-carboxy-2,3,4-trihydroxyphenoxy)-3,4,8,10-tetrahydroxy-6-oxo- (CA  
INDEX NAME)



L8 ANSWER 89 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number

1990:76879 CAPLUS [Full-text](#)

Document Number

112:76879

Title

Decarboxylation in proton-acceptor solvents

Author/Inventor

Andrievskii, A. M.; Poplavskii, A. N.; Grekhova, N. G.; Dyumaev, K. M.; Popova, E. G.; Sobolev, A. N.; Chetkina, L. A.; Bel'skii, V. K.

Patent Assignee/Corporate Source

Nauchno-Issled. Inst. Org. Poluprod. Krasitel., Moscow, 103787, USSR

Source

Khimiya Geterotsiklicheskikh Soedinenii (1989 ), (2), 164-70 CODEN: KGSSAQ; ISSN: 0453-8234

Document Type

Journal

Language

Russian

Abstract

Decarboxylation of dibenzopyrancarboxylic acid I (R = CO<sub>2</sub>H) in DMSO, DMF, or HMPT gave hydroxy derivative I (R = OH) and dinitro derivative I (R = H). Decarboxylation of dioxapyrene derivative II in HMPT gave a mol. complex III which on heating gave I (R = OH). The latter was acetylated to give I (R = OAc). The structure of III was confirmed by x-ray anal.

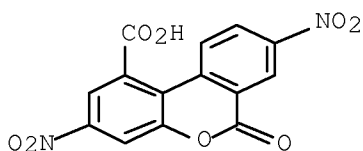
Hit Structure

CAS Registry Number

63636-77-1 CAPLUS

Chemical or Trade Name

6H-Dibenzo[b,d]pyran-1-carboxylic acid, 3,8-dinitro- (CA INDEX NAME)

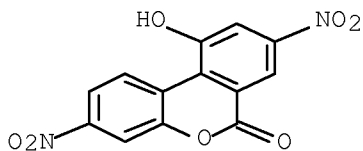


CAS Registry Number

95613-33-5 CAPLUS

Chemical or Trade Name

6H-Dibenzo[b,d]pyran-6-one, 10-hydroxy-3,8-dinitro- (CA INDEX NAME)

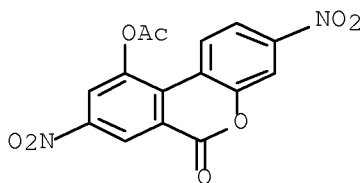


CAS Registry Number

125041-71-6 CAPLUS

Chemical or Trade Name

6H-Dibenzo[b,d]pyran-6-one, 10-(acetyloxy)-3,8-dinitro- (CA INDEX NAME)

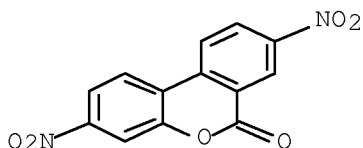


CAS Registry Number

63636-78-2 CAPLUS

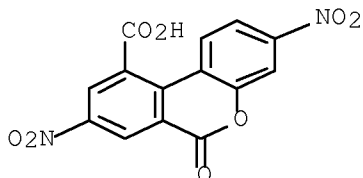
Chemical or Trade Name

6H-Dibenzo[b,d]pyran-6-one, 3,8-dinitro- (CA INDEX NAME)



CAS Registry Number  
95613-31-3 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-10-carboxylic acid, 3,8-dinitro-6-oxo- (CA INDEX NAME)



L8 ANSWER 90 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number  
1990:57176 CAPLUS [Full-text](#)

Document Number  
112:57176

Title  
Photogeneration of charge carriers in polysiloxanes containing nitroaromatic fragments

Author/Inventor  
Bulyshchev, Yu. S.; Pashkin, I. I.; Tverskoi, V. A.; Tkachev, A. V.

Patent Assignee/Corporate Source  
Irk. Gos. Univ., Irkutsk, USSR

Source  
Vysokomolekulyarnye Soedineniya, Seriya B: Kratkie Soobshcheniya (1989), 31(7), 530-4 CODEN: VYSBAI; ISSN: 0507-5483

Document Type  
Journal

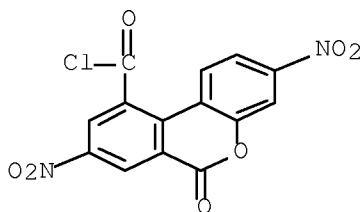
Language  
Russian

Abstract  
Study of the photocond. of siloxanes containing Me, hydroxypropyl, and nitrated fluorenyl or nitrated dibenzopyranonyl side groups showed that the effectiveness of charge carrier transfer depended on the structure of the polymer chain and that the effectiveness of photogeneration depended on the structure of the chromophore side group. The photosensitivity of the polymer depended on the number of nitro groups, the position of the nitro groups in the mol., and the structure of the aromatic ring of the chromophore. The energy gap of the polymers increased with increasing degree of nitration of the chromophore.

Hit Structure

CAS Registry Number  
124959-80-4 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-10-carbonyl chloride, 3,8-dinitro-6-oxo- (CA INDEX NAME)



L8 ANSWER 91 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number  
1989:439077 CAPLUS [Full-text](#)

Document Number  
111:39077

Title  
The synthesis of riccardin C

Author/Inventor  
Gottsegen, A.; Nogradi, M.; Vermes, B.; Kajtar-Peredy, M.; Bihatsi-Karsai, E.

Patent Assignee/Corporate Source  
Res. Group Alkaloid Chem., Hung. Acad. Sci., Budapest, H-1521, Hung.

Source  
Tetrahedron Letters (1988), 29(39), 5039-40 CODEN: TELEAY; ISSN: 0040-4039

Document Type  
Journal

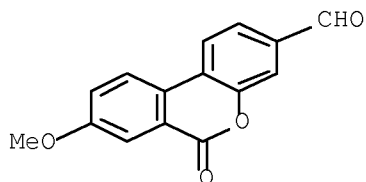
Language  
English

Abstract  
Riccardin C (I), was synthesized in an unambiguous way by Ni(O)-assisted intramol. aryl-aryl bond formation of 2,5-[(HCO)C6H3O2CC6H5(OMe)]-5,2 as the key step.

Hit Structure

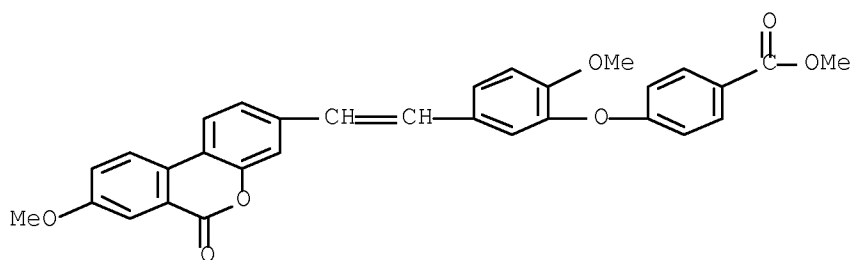
CAS Registry Number  
121404-86-2 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-3-carboxaldehyde, 8-methoxy-6-oxo- (CA INDEX NAME)



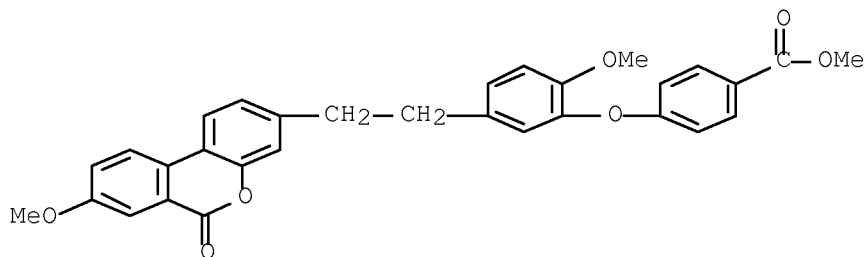
CAS Registry Number  
121404-87-3 CAPLUS

Chemical or Trade Name  
Benzoic acid, 4-[2-methoxy-5-[2-(8-methoxy-6-oxo-6H-dibenzo[b,d]pyran-3-yl)ethenyl]phenoxy]-, methyl ester (CA INDEX NAME)



CAS Registry Number  
121404-88-4 CAPLUS

Chemical or Trade Name  
Benzoic acid, 4-[2-methoxy-5-[2-(8-methoxy-6-oxo-6H-dibenzo[b,d]pyran-3-yl)ethyl]phenoxy]-, methyl ester (CA INDEX NAME)



OS.CITING REF COUNT: 6 THERE ARE 6 CAPLUS RECORDS THAT CITE THIS RECORD  
(6 CITINGS)

L8 ANSWER 92 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number

1989:231437 CAPLUS [Full-text](#)

Document Number

110:231437

Title

Preparation of dibenzopyran derivatives as herbicides

Author/Inventor

Enomoto, Masayuki; Nagano, Hideyoshi; Haga, Toru; Morita, Koichi; Sato, Makoto

Patent Assignee/Corporate Source

Sumitomo Chemical Co., Ltd., Japan

Source

Jpn. Kokai Tokkyo Koho, 9 pp. CODEN: JKXXAF

Document Type

Patent

Language

Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 63264582	A	19881101	JP 1987-99050	19870421

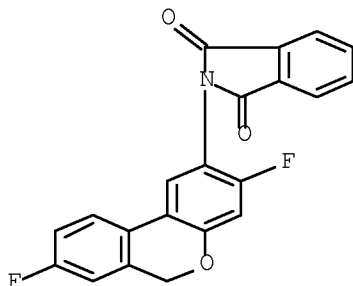
Abstract

Dibenzopyran derivs. (I; R = halo, alkyl; X = H, F; n = 0-4), effective herbicides against a wide variety of weeds, are prepared. A suspension of II (Rn = H, R1 = NH2, X = H) and 3,4,5,6-tetrahydrophthalic anhydride in HOAc was refluxed to give I (Rn = X = H), which showed complete control of an Indian mallow at 20 g/are.

#### Hit Structure

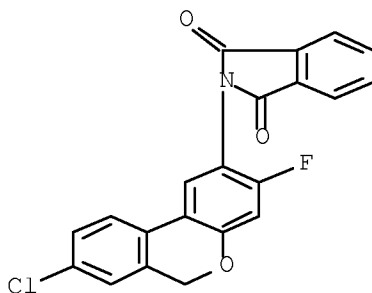
CAS Registry Number  
120866-73-1 CAPLUS

Chemical or Trade Name  
1H-Isoindole-1,3(2H)-dione, 2-(3,8-difluoro-6H-dibenzo[b,d]pyran-2-yl)-  
(CA INDEX NAME)



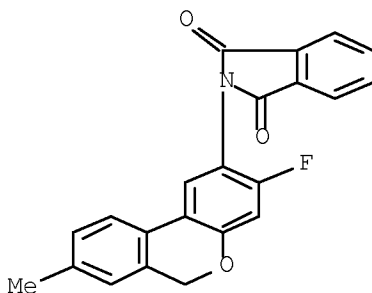
CAS Registry Number  
120866-75-3 CAPLUS

Chemical or Trade Name  
1H-Isoindole-1,3(2H)-dione, 2-(8-chloro-3-fluoro-6H-dibenzo[b,d]pyran-2-yl)-  
(CA INDEX NAME)



CAS Registry Number  
120866-78-6 CAPLUS

Chemical or Trade Name  
1H-Isoindole-1,3(2H)-dione, 2-(3-fluoro-8-methyl-6H-dibenzo[b,d]pyran-2-yl)-  
(CA INDEX NAME)



.L8 ANSWER 93 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number

1989:114634 CAPLUS [Full-text](#)

Document Number

110:114634

Title

System of hydrogen bonds in a crystal of 10-carboxy-3,8-dinitro-6H-dibenzo[b,d]pyran-6-one, toluene, and water (1:1:1)

Author/Inventor

Chetkina, L. A.; Popova, E. G.; Bel'skii, V. K.; Zavodnik, V. E.; Andrievskii, A. M.; Sidorenko, E. N.

Patent Assignee/Corporate Source

Nauchno-Issled. Fiz.-Khim. Inst. im. Karpova, Moscow, USSR

Source

Doklady Akademii Nauk SSSR (1988), 301(2), 350-3 [Crystallogr.] CODEN: DANKAS; ISSN: 0002-3264

Document Type

Journal

Language

Russian

Abstract

An x-ray anal. of dibenzopyranone derivative I in a crystal containing toluene and H<sub>2</sub>O was carried out. The pyran ring of I exists in the boat form. H<sub>2</sub>O mols. participate in 4 H bonds: with the CO<sub>2</sub>H and CO groups and with both O atoms of one NO<sub>2</sub> group. Toluene mols. lie between mols. of I.

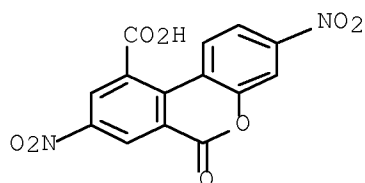
Hit Structure

CAS Registry Number

95613-31-3 CAPLUS

Chemical or Trade Name

6H-Dibenzo[b,d]pyran-10-carboxylic acid, 3,8-dinitro-6-oxo- (CA INDEX NAME)



CAS Registry Number

119329-95-2 CAPLUS

Chemical or Trade Name

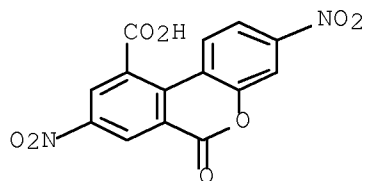
6H-Dibenzo[b,d]pyran-10-carboxylic acid, 3,8-dinitro-6-oxo-, compd. with methylbenzene, hydrate (1:1:1) (CA INDEX NAME)

CM

1

CRN 95613-31-3

CMF C14 H6 N2 O8

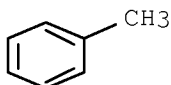


CM

2

CRN 108-88-3

CMF C7 H8



.L8 ANSWER 94 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number

1987:506129 CAPLUS [Full-text](#)

Document Number

107:106129

Title

Six types of nitro compounds for electrophotography

Author/Inventor

Andrievskii, A. M.; Tverskoi, V. A.; Balabanov, E. I.; Titov, V. V.; Pravednikov, A. N.; Dyumaev, K. M.

Patent Assignee/Corporate Source

Nauchno-Issled. Inst. Org. Poluprod. Krasitelei, Moscow, USSR

Source

Elektron. Org. Mater. (1985), 256-9 CODEN: 55TIAF

Document Type

Conference

Language

Russian

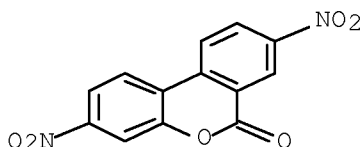
Abstract

Electron-accepting sensitizers were studied for electrophotog. layers based on poly(N-epoxypropylcarbazole) and poly(N-vinylcarbazole). The sensitizers included nitrofluoronecarboxylic acids and their esters I (R = NO<sub>2</sub>, R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub> = H; R, R<sub>3</sub> = NO<sub>2</sub>, R<sub>1</sub>, R<sub>2</sub> = H; R, R<sub>1</sub>, R<sub>3</sub> = NO<sub>2</sub>, R<sub>2</sub> = H; R, R<sub>2</sub> = H, R<sub>1</sub> = CO<sub>2</sub>H, R<sub>3</sub> = NO<sub>2</sub>; R, R<sub>3</sub> = NO<sub>2</sub>, R<sub>1</sub> = CO<sub>2</sub>H, R<sub>2</sub> = H; R, R<sub>2</sub>, R<sub>3</sub> = NO<sub>2</sub>, R<sub>1</sub> = CO<sub>2</sub>H; R, R<sub>2</sub>, R<sub>3</sub> = NO<sub>2</sub>, R<sub>1</sub> = CO<sub>2</sub>M; R, R<sub>2</sub>, R<sub>3</sub> = NO<sub>2</sub>, R<sub>1</sub> = CO<sub>2</sub>C(Me)HMe; R, R<sub>2</sub>, R<sub>3</sub> = NO<sub>2</sub>; R<sub>1</sub> = CO<sub>2</sub>Bu], 2,7-dinitro- and 2,4,7-trinitrophenanthraquinone, nitrophenylcarboxylic acids II (R, R<sub>3</sub>, R<sub>4</sub> = NO<sub>2</sub>, R<sub>1</sub> = H, R<sub>2</sub> = CO<sub>2</sub>H; R, R<sub>1</sub>, R<sub>3</sub>, R<sub>4</sub> = NO<sub>2</sub>, R<sub>2</sub> = CO<sub>2</sub>H, R, R<sub>3</sub>, R<sub>4</sub> = NO<sub>2</sub>, R<sub>1</sub> = R<sub>2</sub> = H; R, R<sub>1</sub>, R<sub>3</sub>, R<sub>4</sub> = NO<sub>2</sub>, R<sub>2</sub> = H; R, R<sub>4</sub> = NO<sub>2</sub>), III (R = H; R = NO<sub>2</sub>, n = 1; R = NO<sub>2</sub>, n = 2), IV (R, R<sub>1</sub> = H; R = NO<sub>2</sub>, R<sub>1</sub> = H; R, R<sub>1</sub> = NO<sub>2</sub>), and V (R, R<sub>2</sub> = H, R<sub>1</sub>, R<sub>3</sub> = NO<sub>2</sub>; R<sub>1</sub> = H, R, R<sub>2</sub>, R<sub>3</sub> = NO<sub>2</sub>). The best results were obtained on the poly (N-epoxypropylcarbazole) layers containing 10 weight% V (R<sub>1</sub> = H, R, R<sub>2</sub>, R<sub>3</sub> = NO<sub>2</sub>), where exposure half-decay of the surface potential was H = 187 lx-s. The photoconductive layers containing the above sensitizers exhibited the drawbacks characteristics for the layers containing trinitrofluorenone (impossibility to use higher sensitizer concns., bad phys.-mech. properties of the layers etc.). These drawbacks were eliminated using polymers sensitizers (obtained by reacting trinitrofluorene-carboxylic acids with polymers containing reactive functional groups), also the layers had high sensitivity with H = 20-30 lx-s.

#### Hit Structure

CAS Registry Number  
63636-78-2 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3,8-dinitro- (CA INDEX NAME)



.L8 ANSWER 95 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number

1987:224452 CAPLUS Full-text

Document Number

106:224452

Title

Electrophotographic charge-generating azo photoconductors

Author/Inventor

Hirose, Hisaoh; Watanabe, Kazumasa; Kinoshita, Akira

Patent Assignee/Corporate Source

Konishiroku Photo Industry Co., Ltd., Japan

Source

Jpn. Kokai Tokkyo Koho, 21 pp. CODEN: JKXXAF

Document Type

Patent

Language

Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 61259258	A	19861117	JP 1985-102333	19850513
JP 04015469	B	19920318		

#### Abstract

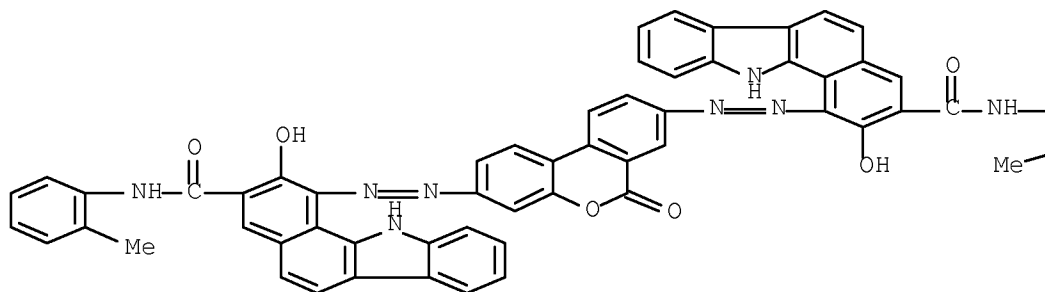
The azo compds. have the formula I(Y<sub>1</sub>, Y<sub>2</sub> = H, halo, alkyl, etc.; A = II, III, IV, etc.; Q<sub>1</sub>, Q<sub>3</sub>, Q<sub>6</sub> = V, VI, etc.; R<sub>11</sub>, R<sub>14</sub> = H, alkyl, halo, alkoxy, etc.; n, m = 1-5). An Al substrate was coated with a charge-generating layer composed of Panlite L 1250 binder and the azo compound of the formula VII and charge-transporting layer composed of Panlite L 1250 binder and 1-phenyl-(p-methylstyryl)-5-(p-methoxyphenyl)pyrazoline to give a composite photoconductor. It showed improved sensitivity and stability for repeated uses.

#### Hit Structure

CAS Registry Number  
108525-61-7 CAPLUS

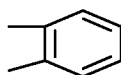
Chemical or Trade Name

11H-Benzo[a]carbazole-3-carboxamide,  
1,1'-[[(6-oxo-6H-dibenzo[b,d]pyran-3,8-diyl)bis(azo)]bis[2-hydroxy-N-(2-methylphenyl)- (9CI) (CA INDEX NAME)



PAGE 1-A

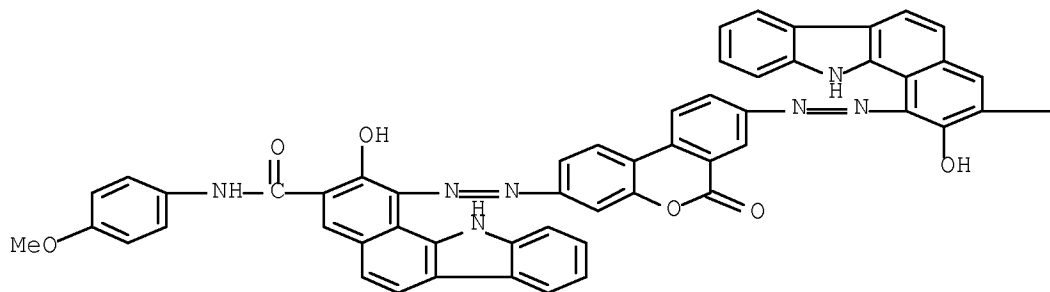
PAGE 1-B



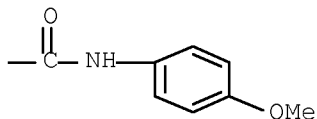
CAS Registry Number  
108525-62-8 CAPLUS

Chemical or Trade Name  
11H-Benzo[a]carbazole-3-carboxamide,  
1,1'-[(6-oxo-6H-dibenzo[b,d]pyran-3,8-diyl)bis(azo)]bis[2-hydroxy-N-(4-  
methoxyphenyl)- (9CI) (CA INDEX NAME)

PAGE 1-A



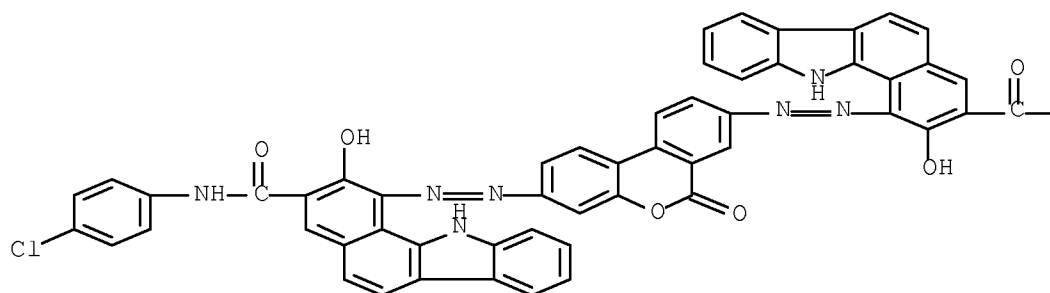
PAGE 1-B



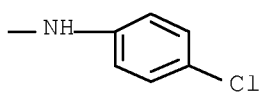
CAS Registry Number  
108525-63-9 CAPLUS

Chemical or Trade Name  
11H-Benzo[a]carbazole-3-carboxamide,  
1,1'-[(6-oxo-6H-dibenzo[b,d]pyran-3,8-diyl)bis(azo)]bis[N-(4-chlorophenyl)-  
2-hydroxy- (9CI) (CA INDEX NAME)

PAGE 1-A



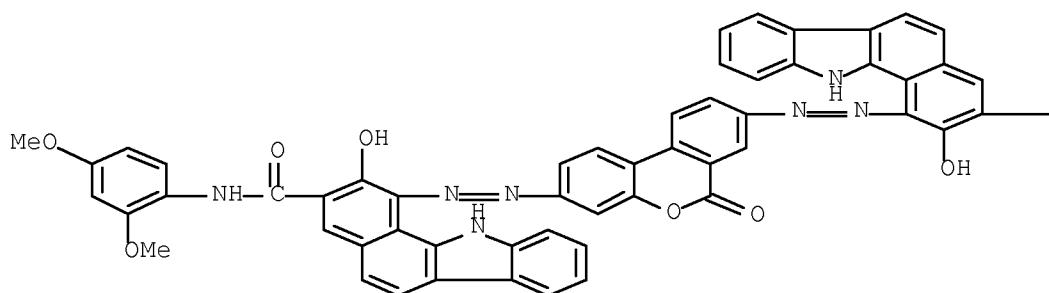
PAGE 1-B



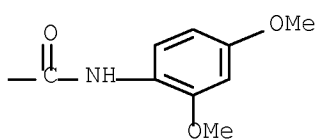
CAS Registry Number  
108525-64-0 CAPLUS

Chemical or Trade Name  
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 dimethoxyphenyl)-2-hydroxy- (9CI) (CA INDEX NAME)

PAGE 1-A



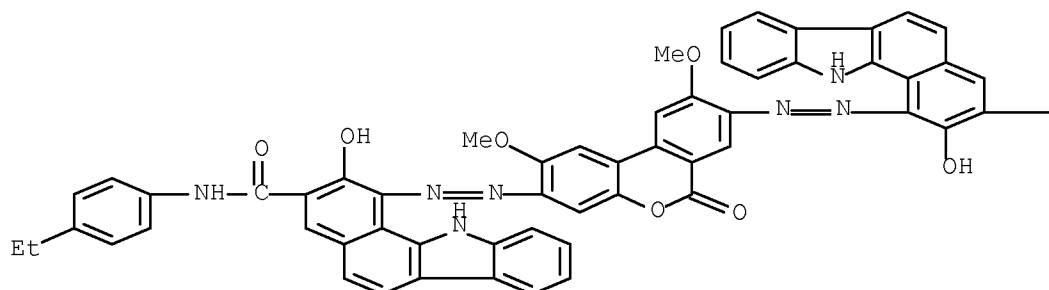
PAGE 1-B



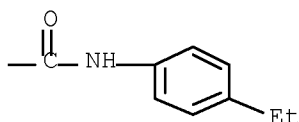
CAS Registry Number  
 108525-65-1 CAPLUS

Chemical or Trade Name  
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 1,1'-[(2,9-dimethoxy-6-oxo-6H-dibenzo[b,d]pyran-3,8-diyl)bis(azo)]bis[N-(4-  
 ethylphenyl)-2-hydroxy- (9CI) (CA INDEX NAME)

PAGE 1-A



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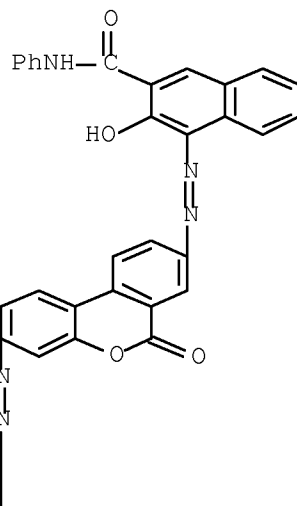


CAS Registry Number  
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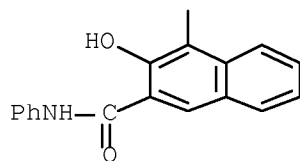
Chemical or Trade Name  
 2-Naphthalenecarboxamide, 4,4'-[(6-oxo-6H-dibenzo[b,d]pyran-3,8-

diyl)bis(azo)]bis[3-hydroxy-N-phenyl- (9CI) (CA INDEX NAME)

PAGE 1-A



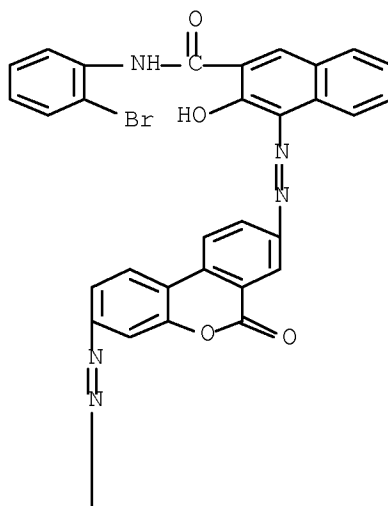
PAGE 2-A



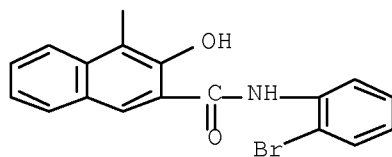
CAS Registry Number  
108525-67-3 CAPLUS

Chemical or Trade Name  
2-Naphthalenecarboxamide, 4,4'-[6-oxo-6H-dibenzo[b,d]pyran-3,8-diyl)bis(azo)]bis[3-hydroxy-N-(2-bromophenyl)- (9CI) (CA INDEX NAME)

PAGE 1-A



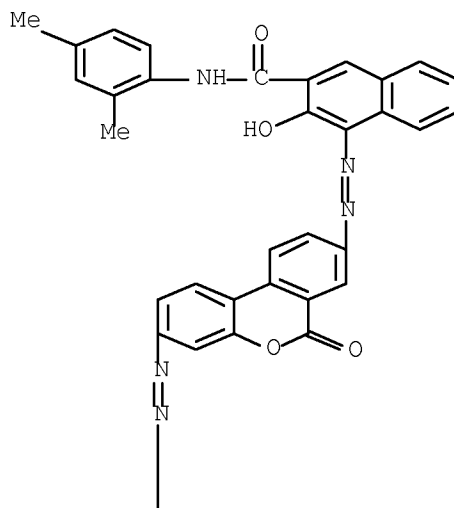
PAGE 2-A



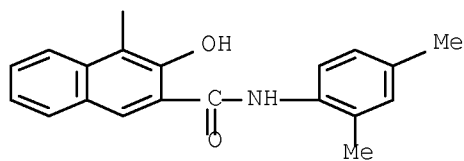
CAS Registry Number  
108525-68-4 CAPLUS

Chemical or Trade Name  
2-Naphthalenecarboxamide, 4,4'-[(6-oxo-6H-dibenzo[b,d]pyran-3,8-diyl)bis(azo)]bis[N-(2,4-dimethylphenyl)-3-hydroxy- (9CI) (CA INDEX NAME)]

PAGE 1-A



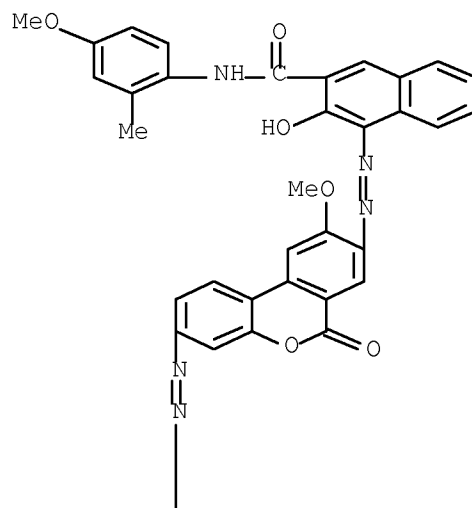
PAGE 2-A



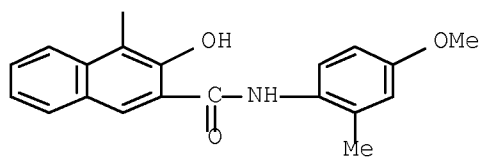
CAS Registry Number  
108525-69-5 CAPLUS

Chemical or Trade Name  
2-Naphthalenecarboxamide, 4,4'-[(9-methoxy-6-oxo-6H-dibenzo[b,d]pyran-3,8-diyl)bis(azo)]bis[3-hydroxy-N-(4-methoxy-2-methylphenyl)- (9CI) (CA INDEX NAME)]

PAGE 1-A



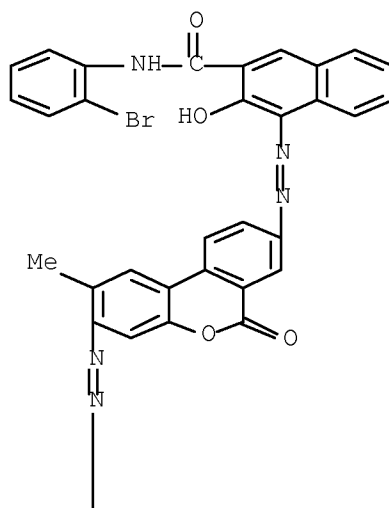
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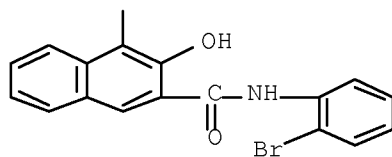


CAS Registry Number  
108525-70-8 CAPLUS

Chemical or Trade Name  
2-Naphthalenecarboxamide, 4,4'-[(2-methyl-6-oxo-6H-dibenzo[b,d]pyran-3,8-diyl)bis(azo)]bis[N-(2-bromophenyl)-3-hydroxy- (9CI) (CA INDEX NAME)]

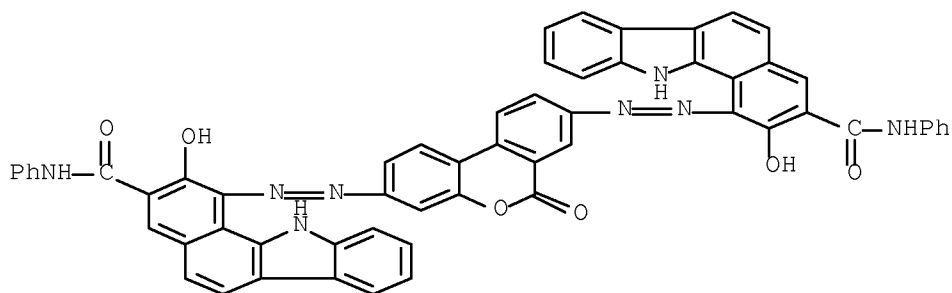
PAGE 1-A





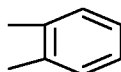
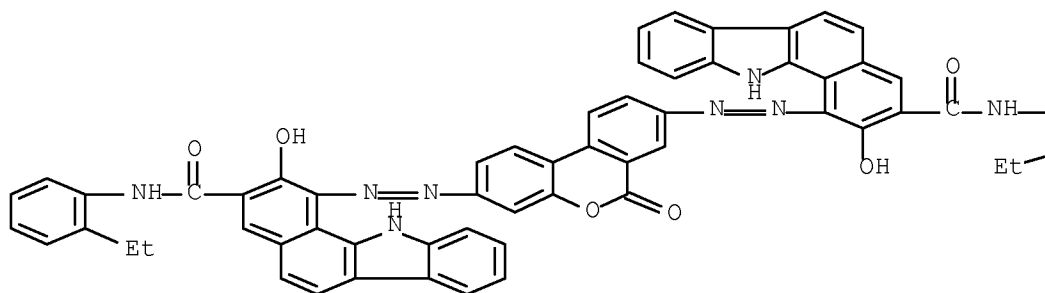
CAS Registry Number  
108525-88-8 CAPLUS

Chemical or Trade Name  
11H-Benzo[a]carbazole-3-carboxamide,  
1,1'-bis(2-hydroxy-N-phenyl-)-,  
1,1'-bis(6-oxo-6H-dibenzo[b,d]pyran-3,8-diyl)bis(azo)bis(2-hydroxy-N-phenyl-)-  
(9CI) (CA INDEX NAME)



CAS Registry Number  
108543-47-1 CAPLUS

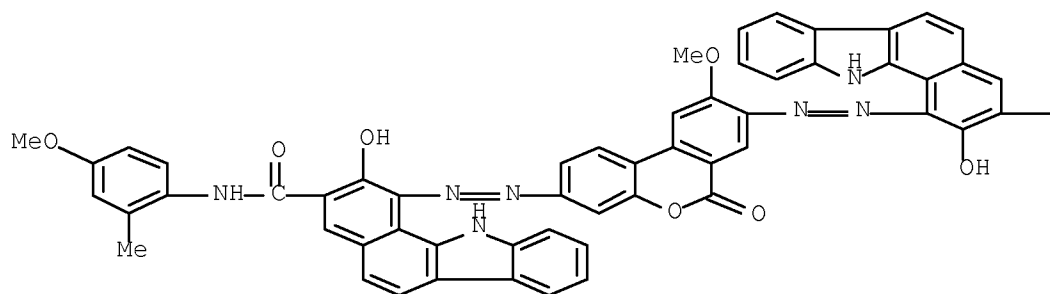
Chemical or Trade Name  
11H-Benzo[a]carbazole-3-carboxamide,  
1,1'-bis(2-ethylphenyl-)-,  
1,1'-bis(6-oxo-6H-dibenzo[b,d]pyran-3,8-diyl)bis(azo)bis(2-ethylphenyl-)-  
(9CI) (CA INDEX NAME)



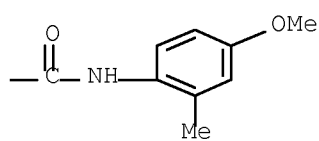
CAS Registry Number  
108543-48-2 CAPLUS

Chemical or Trade Name  
11H-Benzo[a]carbazole-3-carboxamide,  
1,1'-bis(2-ethylphenyl-)-,  
1,1'-bis(6-oxo-6H-dibenzo[b,d]pyran-3,8-diyl)bis(azo)bis(2-ethylphenyl-)-  
(9CI) (CA INDEX NAME)

PAGE 1-A



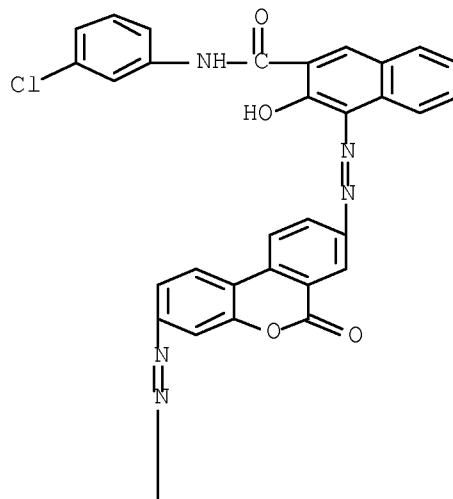
PAGE 1-B



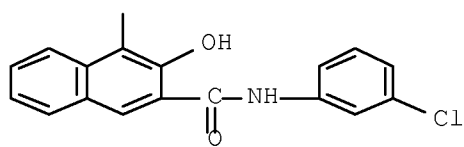
CAS Registry Number  
108543-49-3 CAPLUS

Chemical or Trade Name  
2-Naphthalenecarboxamide, 4,4'-[ (6-oxo-6H-dibenzo[b,d]pyran-3,8-  
diyl)bis(azo)]bis[N-(3-chlorophenyl)-3-hydroxy- (9CI) (CA INDEX NAME)

PAGE 1-A

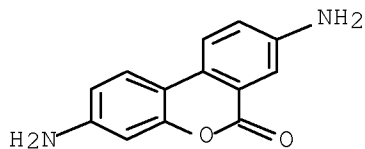


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CAS Registry Number  
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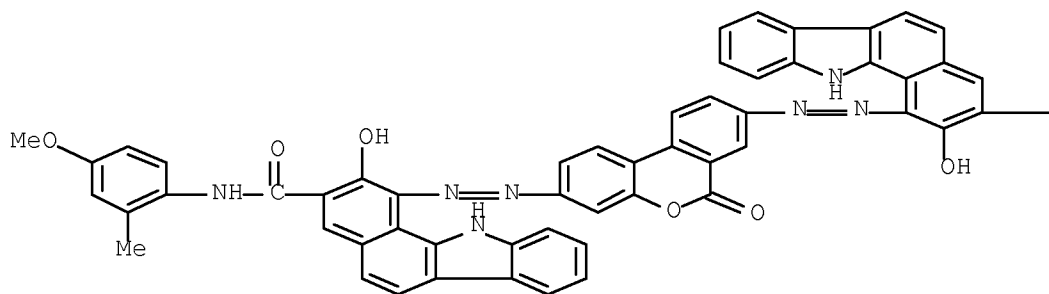
Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3,8-diamino- (CA INDEX NAME)



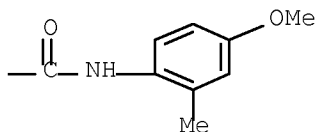
CAS Registry Number  
108525-87-7 CAPLUS

Chemical or Trade Name  
11H-Benzo[a]carbazole-3-carboxamide, 1,1'-[(6-oxo-6H-dibenzo[b,d]pyran-3,8-diyl)bis(azo)]bis[2-hydroxy-N-(4-methoxy-2-methylphenyl)- (9CI) (CA INDEX NAME)

PAGE 1-A

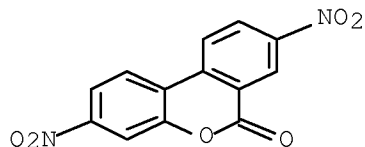


PAGE 1-B



CAS Registry Number  
63636-78-2 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3,8-dinitro- (CA INDEX NAME)



L8 ANSWER 96 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number  
1986:590939 CAPLUS Full-text

Document Number  
105:190939

Title  
10-Carboxy-3,8-dinitro-6H-dibenzo[b,d]pyran-6-one

Author/Inventor  
Andrievskii, A. M.; Sidorenko, E. N.; Grekhova, N. G.; Dyumaev, K. M.; Popova, E. G.; Chetkina, L. A.; Bel'skii, V. K.  
Patent Assignee/Corporate Source  
USSR

Source

U.S.S.R. From: Otkrytiya, Izobret. 1986, (22), 117. CODEN: URXXAF

Document Type

Patent

Language

Russian

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
SU 1237665	A1	19860615	SU 1984-3802293	19841015

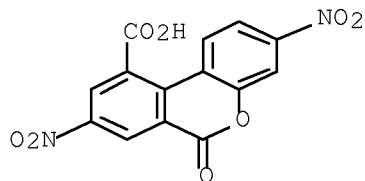
Abstract

10-Carboxy-3,8-dinitro-6H-dibenzo[b,d]pyran-6-one (I) is prepared from fluorenone derivs. and inorg. acid. Thus, 2,7-dinitro-4-carboxy-9-fluorenone (II) was treated with H<sub>2</sub>O<sub>2</sub> in H<sub>2</sub>SO<sub>4</sub> at 20-30° at a molar ratio of II, H<sub>2</sub>O<sub>2</sub>, and H<sub>2</sub>SO<sub>4</sub> 1:(3-8):(40-90) resp.

Hit Structure

CAS Registry Number  
95613-31-3 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-10-carboxylic acid, 3,8-dinitro-6-oxo- (CA INDEX  
NAME)



L8 ANSWER 97 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number

1986:530664 CAPLUS [Full-text](#)

Document Number

105:130664

Title

Tannins and related compounds. XLII. Isolation and characterization of four new hydrolyzable tannins, terflavins A and B, tergallagin and tercatatin from the leaves of Terminalia catappa L

Author/Inventor

Tanaka, Takashi; Nonaka, Genichiro; Nishioka, Itsuo

Patent Assignee/Corporate Source

Fac. Pharm. Sci., Kyushu Univ. 62, Fukuoka, 812, Japan

Source

Chemical & Pharmaceutical Bulletin (1986), 34(3), 1039-49 CODEN: CPBTAL; ISSN: 0009-2363

Document Type

Journal

Language

English

Abstract

A chemical examination of the leaves of *T. catappa* (Combretaceae) led to the isolation and characterization of 4 new hydrolyzable tannins named terflavins A (I) and B (II), tergallagin, and tercatatin, together with the 8 known tannins punicalin, punicalagin, chebulagic acid, geraniin, granatin B, 1-desgalloylgeraniin, corilagin, and 2,3-[(S)-4,4',5,5',6,6'-hexahydroxydiphenyl]-D-glucose. I and II possess novel structures in which a flavogallonyl (triphenyl) ester group is single bonded to the glucopyranose ring, and are presumed to be biosynthetic precursors of punicalagin and punicalin, resp., while tergallagin which contains a gallagyl (tetraphenyl) group and a unique tergalloyl ester group attached to the glucose moiety, seems to be formed biosynthetically from punicalagin.

Hit Structure

CAS Registry Number

104320-85-6 CAPLUS

Chemical or Trade Name

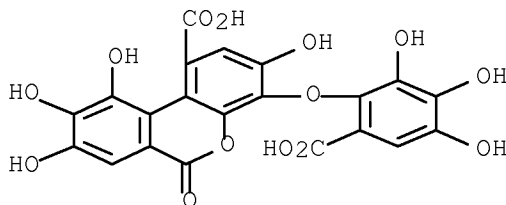
D-Glucose, cyclic 4,6-[(2S,2'S)-2,2'-(5,10-dihydro-2,3,7,8-tetrahydroxy-5,10-dioxo[1]benzopyrano[5,4,3-cde][1]benzopyran-1,6-diyl)bis[3,4,5-trihydroxybenzoate]], cyclic 2,3-ester with 4-(6-carboxy-2,3,4-trihydroxyphenoxy)-3,8,9,10-tetrahydroxy-6-oxo-6H-dibenzo[b,d]pyran-1-carboxylic acid (9CI) (CA INDEX NAME)

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CRN 104243-50-7

CMF C21 H12 O14

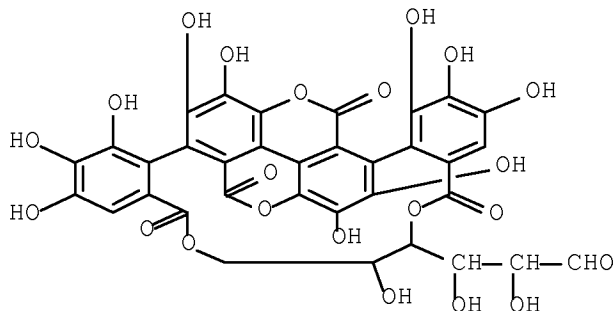


CM

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CRN 65995-64-4

CMF C34 H22 O22



CAS Registry Number

103714-77-8 CAPLUS

Chemical or Trade Name

β-D-Glucopyranoside, methyl, cyclic 4,6-[2,2'-(5,10-dihydro-2,3,7,8-tetramethoxy-5,10-dioxo[1]benzopyrano[5,4,3-cde][1]benzopyran-1,6-diyl)bis[3,4,5-trimethoxybenzoate]], cyclic ester with 4-(6-carboxy-2,3,4-trimethoxyphenoxy)-3,8,9,10-tetramethoxy-6-oxo-6H-dibenzo[b,d]pyran-1-carboxylic acid, stereoisomer (9CI) (CA INDEX NAME)

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CRN 103714-76-7

CMF C45 H44 O22

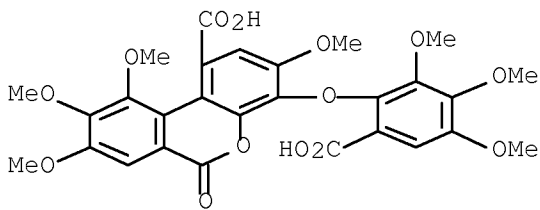
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CRN 103714-75-6

CMF C28 H26 O14



CAS Registry Number  
103774-24-9 CAPLUS

Chemical or Trade Name  
 $\alpha$ -D-Glucopyranoside, methyl, cyclic  
4,6-[2,2'-(5,10-dihydro-2,3,7,8-tetramethoxy-5,10-dioxo[1]benzopyrano[5,4,3-cde][1]benzopyran-1,6-diyl)bis(3,4,5-trimethoxybenzoate)], cyclic ester with  
4-(6-carboxy-2,3,4-trimethoxyphenoxy)-3,8,9,10-tetramethoxy-6-oxo-6H-dibenzo[b,d]pyran-1-carboxylic acid, stereoisomer (9CI) (CA INDEX NAME)

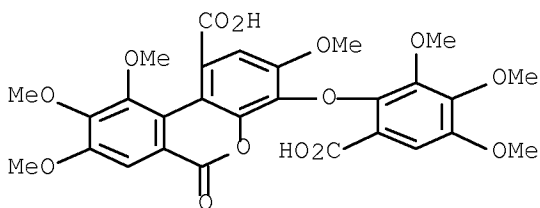
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CMF C45 H44 O22

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CRN 103714-75-6  
CMF C28 H26 O14



OS.CITING REF COUNT: 41 THERE ARE 41 CAPLUS RECORDS THAT CITE THIS RECORD (41 CITINGS)

L8 ANSWER 98 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number

1986:139706 CAPLUS [Full text](#)

Document Number

104:139706

Title

Crystal and molecular structure of two modifications of 2,3,8-trinitro-6H-dibenzo[b,d]pyran-6-one

Author/Inventor

Popova, E. G.; Chetkina, L. A.; Bel'skii, V. K.; Andrievskii, A. M.; Poplavskii, A. N.; Dyumaev, K. M.

Patent Assignee/Corporate Source

Fiz.-Khim. Inst. im. Karpova, Moscow, USSR

Source

Kristallografiya (1986), 31(1), 113-19 CODEN: KRISAJ; ISSN: 0023-4761

Document Type

Journal

Language

Russian

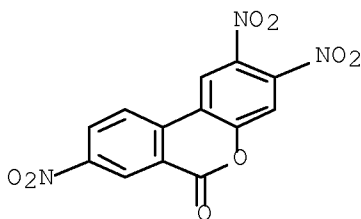
Abstract

The title compound is monoclinic, space group P2<sub>1</sub>/n, with a 7.455(1), b 10.295(2), c 18.085(4) Å, and  $\gamma$  104.98(1) $^\circ$ ; dc = 1.64 for Z = 4 and orthorhombic, space group P2<sub>1</sub>2<sub>1</sub>2<sub>1</sub>, with a 5.027(1), b 10.379(2), and c 24.756(7) Å; dc = 1.70 for Z = 4. The atomic parameters are given. The structures were refined by full-matrix least-squares to R = 0.032 and 0.029, resp. The dibenzopyran rings in both forms are planar. The bond lengths and angles were compared.

Hit Structure

CAS Registry Number  
99819-84-8 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 2,3,8-trinitro- (CA INDEX NAME)



. L8 ANSWER 99 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number

1986:139700 CAPLUS [Full-text](#)

Document Number

104:139700

Title

The structure of 2,3,4,8-tetranitro-6H-dibenzo[b,d]pyran-6-one

Author/Inventor

Chetkina, L. A.; Popova, E. G.; Bel'skii, V. K.; Andrievskii, A. M.; Poplavskii, A. M.; Dyumaev, K. M.

Patent Assignee/Corporate Source

Nauchno-Issled. Fiz.-Khim. Inst. im. Karpova, Moscow, USSR

Source

Doklady Akademii Nauk SSSR (1985), 285(5), 1160-4 CODEN: DANKAS; ISSN: 0002-3264

Document Type

Journal

Language

Russian

Abstract

The title compound is monoclinic, space group P2<sub>1</sub>/b, with a 7.073(2) Å, b 14.789(4) Å, c 13.429(3) Å, and γ 90.62(2)°; dc = 1.783 for Z = 4. The atomic parameters are given. The structure was solved by direct methods and refined by full-matrix least-squares to R = 0.033. The bond lengths and angles are given.

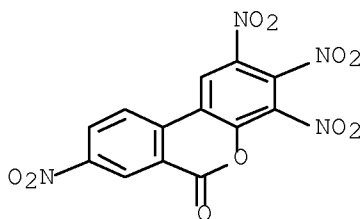
Hit Structure

CAS Registry Number

99819-85-9 CAPLUS

Chemical or Trade Name

6H-Dibenzo[b,d]pyran-6-one, 2,3,4,8-tetranitro- (CA INDEX NAME)



. L8 ANSWER 100 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number

1986:50803 CAPLUS [Full-text](#)

Document Number

104:50803

Title

Synthesis of nitro-substituted dioxotetrahydrodioxapyrenes and 6H-dibenzo[b,d]pyran-6-one

Author/Inventor

Andrievskii, A. M.; Poplavskii, A. N.; Eremenko, L. V.; Andronova, N. A.; Dyumaev, K. M.

Patent Assignee/Corporate Source

Nauchno-Issled. Inst. Org. Poluprod. Krasitelei, Moscow, 103787, USSR

Source

Khimiya Geterotsiklicheskikh Soedinenii (1985), (4), 463-7 CODEN: KGSSAQ; ISSN: 0453-8234

Document Type

Journal

Language

Russian

Abstract

Nitration of dioxapyrene I (R = R<sub>1</sub> = H) by HNO<sub>3</sub> 30 min at 78-80° gave 89% I (R = NO<sub>2</sub>, R<sub>1</sub> = H); nitration by HNO<sub>3</sub>-H<sub>2</sub>SO<sub>4</sub> 30 min at 120° gave 91% I (R = R<sub>1</sub> = NO<sub>2</sub>). Nitration of 6H-dibenzo[b,d]pyran-6-one by HNO<sub>3</sub> gave 92% 2,4,8-trinitro derivative; nitration by HNO<sub>3</sub>-H<sub>2</sub>SO<sub>4</sub> gave 24% biphenyl derivative II. Nitration of 3,8-dinitro-6H-dibenzopyran-6-one by HNO<sub>3</sub> gave 76% 2,3,8-trinitro derivative, which was further nitrated by HNO<sub>3</sub>-H<sub>2</sub>SO<sub>4</sub> to give 64% 2,3,4,8-tetranitro derivative

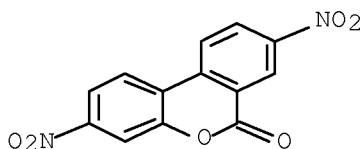
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CAS Registry Number

63636-78-2 CAPLUS

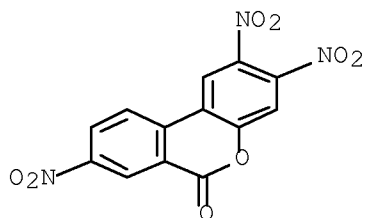
Chemical or Trade Name

6H-Dibenzo[b,d]pyran-6-one, 3,8-dinitro- (CA INDEX NAME)



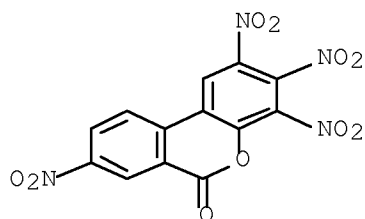
CAS Registry Number  
99819-84-8 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 2,3,8-trinitro- (CA INDEX NAME)



CAS Registry Number  
99819-85-9 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 2,3,4,8-tetranitro- (CA INDEX NAME)



.L8 ANSWER 101 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number

1985:468235 CAPLUS [Full-text](#)

Document Number

103:68235

Title

Effects of the interaction of tannins with coexisting substances. Part III. Relationship of the structures of tannins to the binding activities with hemoglobin and methylene blue

Author/Inventor

Okuda, Takuo; Mori, Kazuko; Hatano, Tsutomu

Patent Assignee/Corporate Source

Fac. Pharm. Sci., Okayama Univ., Okayama, 700, Japan

Source

Chemical & Pharmaceutical Bulletin (1985), 33(4), 1424-33 CODEN: CPBTAL; ISSN: 0009-2363

Document Type

Journal

Language

English

Abstract

The determination of relative astringency (RA) and relative affinity to methylene blue (RMB), based on those of geraniin (RAG and RMBG), shows good reproducibility with small amts. of samples for the estimation of the tannin content of plant exts., and has been applied to the evaluation of the basal activity of 84 tannins and related compds. The values obtained for polyphenols of lower mol. weight, which are not regarded as tannins, were zero or almost zero. An increase of these 2 values of up to about 1.3-1.4 times with increase of mol. weight of polyphenols (particularly such increase due to galloylation) was observed for each type of tannin tested. The RMBG determination gives values somewhat larger than the RAG values for hydrolyzable tannins, and rather smaller than the RAG values for condensed tannins.

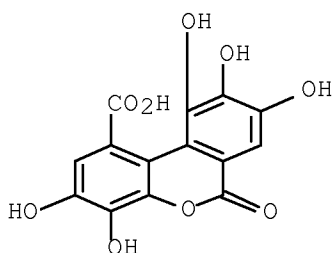
Hit Structure

CAS Registry Number

476-67-5 CAPLUS

Chemical or Trade Name

6H-Dibenzo[b,d]pyran-1-carboxylic acid, 3,4,8,9,10-pentahydroxy-6-oxo-  
(CA INDEX NAME)



OS.CITING REF COUNT: 41 THERE ARE 41 CAPLUS RECORDS THAT CITE THIS RECORD (41 CITINGS)

.L8 ANSWER 102 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number

1985:149046 CAPLUS [Full-text](#)

Document Number

102:149046

Title

Cleavage of the carboxyl group in 3,8-dinitro-6-oxo-6H-dibenzo[b,d]pyran-10-carboxylic acid in the presence of DMSO and DMF

Author/Inventor

Andrievskii, A. M.; Sidorenko, E. N.; Poplavskii, A. N.; Dyumaev, K. M.

Patent Assignee/Corporate Source

Nauchno-Issled. Inst. Org. Poluprod. Krasitelei, Moscow, 103787, USSR

Source

Khimiya Geterotsiklicheskikh Soedinenii (1984), (12), 1690-1 CODEN: KGSSAQ; ISSN: 0453-8234

Document Type

Journal

Language

Russian

Abstract

In Me<sub>2</sub>SO or DMF the lactone ring of the title compound (I; R = CO<sub>2</sub>H) opened to give biphenyl derivative II. Boiling these solns. gave I (R = H, OH).

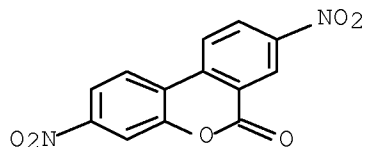
Hit Structure

CAS Registry Number

63636-78-2 CAPLUS

Chemical or Trade Name

6H-Dibenzo[b,d]pyran-6-one, 3,8-dinitro- (CA INDEX NAME)

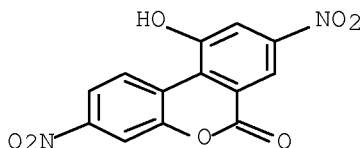


CAS Registry Number

95613-33-5 CAPLUS

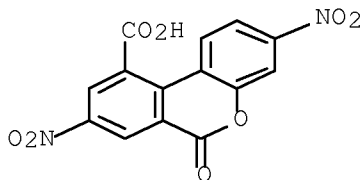
Chemical or Trade Name

6H-Dibenzo[b,d]pyran-6-one, 10-hydroxy-3,8-dinitro- (CA INDEX NAME)



CAS Registry Number  
95613-31-3 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-10-carboxylic acid, 3,8-dinitro-6-oxo- (CA INDEX NAME)



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD  
(1 CITINGS)

.L8 ANSWER 103 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number  
1985:113215 CAPLUS [Full-text](#)

Document Number  
102:113215

Title  
The competition between electrocyclic reaction and [1,5]sigmatropic reaction in the thermolysis of 1,1-disubstituted benzocyclobutenes

Author/Inventor  
Shishido, Kozo; Ito, Masahiro; Shimada, Shinichi; Fukumoto, Keiichiro; Kametani, Tetsuji

Patent Assignee/Corporate Source  
Pharm. Inst., Tohoku Univ., Sendai, 980, Japan

Source  
Chemistry Letters (1984), (11), 1943-6 CODEN: CMLTAG; ISSN: 0366-7022

Document Type  
Journal

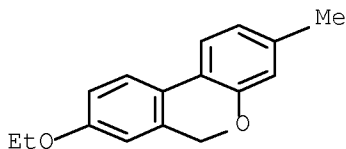
Language  
English

Abstract  
Thermolysis of 1-acyl-1-alkylbenzocyclobutenes (I; R = H, Me, HO; R1 = vinyl, Ac, 1,3-dioxolan-2-yl) gave predominantly the corresponding isochromenes II via Z-conformer of the o-quinodimethane in the transition state. Similarly spirobenzocyclobutenes, e.g., III, also gave isochromene derivs. predominantly.

Hit Structure

CAS Registry Number  
95257-10-6 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran, 8-ethoxy-3-methyl- (CA INDEX NAME)



OS.CITING REF COUNT: 25 THERE ARE 25 CAPLUS RECORDS THAT CITE THIS  
RECORD (25 CITINGS)

.L8 ANSWER 104 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number  
1985:92966 CAPLUS [Full-text](#)

Document Number  
102:92966

Title  
3,4,8,9,10-Pentahydroxy-dibenzo[b,d]pyran-6-one from Tamarix nilotica

Author/Inventor  
Nawwar, M. A. M.; Souleman, A. M. A.

Patent Assignee/Corporate Source  
Natl. Res. Cent., Cairo, Egypt

Source  
Phytochemistry (Elsevier) (1984), 23(12), 2966-7 CODEN: PYTCAS; ISSN: 0031-9422

Document Type  
Journal

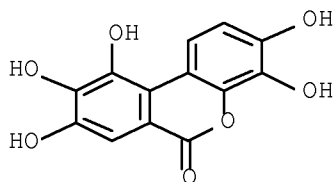
Language  
English

Abstract  
A new natural product, 3,4,8,9,10-pentahydroxy-dibenzo[b,d]pyran-6-one (I), was isolated from the flowers of T. nilotica, along with the known compound ellagic acid, 2,3,7,8-tetrahydroxy[1]benzopyrano[5,4,3-cde][1]

benzopyran-5,10-dione. The structure of I was determined by chemical and spectroscopic methods. The <sup>13</sup>C NMR spectrum of ellagic acid was recorded and assigned.  
Hit Structure

CAS Registry Number  
91485-02-8 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3,4,8,9,10-pentahydroxy- (CA INDEX NAME)



OS.CITING REF COUNT: 17 THERE ARE 17 CAPLUS RECORDS THAT CITE THIS  
RECORD (17 CITINGS)

L8 ANSWER 105 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number

1984:486224 CAPLUS [Full-text](#)

Document Number

101:86224

Title

Plant phenols as in vitro inhibitors of glutathione S-transferase(s)

Author/Inventor

Das, Mukul; Bickers, David R.; Mukhtar, Hasan

Patent Assignee/Corporate Source

Dep. Dermatol., Case West. Reserve Univ., Cleveland, OH, 44106, USA

Source

Biochemical and Biophysical Research Communications ( 1984), 120(2), 427-33 CODEN: BBRC A9; ISSN: 0006-291X

Document Type

Journal

Language

English

Abstract

Ellagic acid (I), a commonly occurring plant phenol, was shown to be a potent in vitro inhibitor of glutathione S-transferase (II) activity. Other plant phenols, such as ferulic acid, caffeic acid, and chlorogenic acid also showed a concentration-dependent inhibition of II. The  $IC_{50}$  values of I, caffeic acid, chlorogenic acid, and ferulic acid were 8.3, 14.0, 20.0, and  $22.0 \pm 10.5$  M, resp., suggesting that I is the most potent inhibitor of all the 4 studied plant phenols. At  $55 \mu\text{M}$ , significant inhibition (35-47%) was observed with II activity toward 1-chloro-2,4-dinitrobenzene (III), p-nitrobenzyl chloride, and 1,2-epoxy-3-(p-nitrophenoxy)propane as substrates. I inhibited II activity in a noncompetitive manner with respect to III, whereas with respect to glutathione it inhibited II activity in a competitive manner. Other phenolic compounds (purpurogallin, quercetin, alizarin, and monolactone) also showed a concentration-dependent inhibition of II with  $IC_{50}$  values of 0.8, 1.0, 8.0, and  $16.0 \pm 10.3$  M, resp. These inhibitors of II should be useful in studying the in vitro enzyme-mediated reactions of exogenous and endogenous compounds.

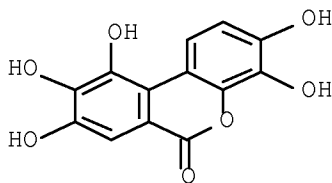
Hit Structure

CAS Registry Number

91485-02-8 CAPLUS

Chemical or Trade Name

6H-Dibenzo[b,d]pyran-6-one, 3,4,8,9,10-pentahydroxy- (CA INDEX NAME)



OS.CITING REF COUNT: 24 THERE ARE 24 CAPLUS RECORDS THAT CITE THIS RECORD (24 CITINGS)

L8 ANSWER 106 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number

1984:138828 CAPLUS [Full-text](#)

Document Number

100:138828

Title

Cannabis. Part 27. Synthesis of 8-, 10-, and 11-oxygenated cannabinoids

Author/Inventor

Novak, Jiri; Salemin, Cornelis A.

Patent Assignee/Corporate Source

Lab. Org. Chem., State Univ. Utrecht, Utrecht, Neth.

Source

Journal of the Chemical Society, Perkin Transactions 1: Organic and Bio-Organic Chemistry (1972-1999) ( 1983), (12), 2867-71 CODEN: JCPRB4; ISSN: 0300-922X

Document Type

Journal

Language

English

Abstract

Carboxylic acid I ( $R = CO_2H$ ) (II) was prepared in 8 steps from 2,4-HOBrC<sub>6</sub>H<sub>3</sub>COMe. Reduction of II with LiAlH<sub>4</sub> gave 11-hydroxycannabinol (I;  $R = CH_2OH$ ) (III). II and III are metabolites of cannabinol in man. I ( $R = CHO$ ), prepared by oxidation of III, and IV ( $R = OH$ ,  $R_1 = H$ ;  $R = H$ ,  $R_1 = OH$ ) prepared analogously from 2,5,4- and 2,3,4-(MeO)<sub>2</sub>MeC<sub>6</sub>H<sub>2</sub>CO<sub>2</sub>H, resp., are possible cannabinol metabolites. In each preparation the key step was the regioselective Grignard reaction of arylidihydrooxazoles V ( $R = R_1 = H$ ;  $R \neq R_1 = H$ , OMe;  $R_2 = OMe$ ) with 3,5,4-(MeO)<sub>2</sub>BrC<sub>6</sub>H<sub>2</sub>(CH<sub>2</sub>)<sub>4</sub>Me to give V [R,  $R_1$  as before,  $R_2 = C_6H_2(OMe)_2(CH_2)_4Me-2,6,4$ ].

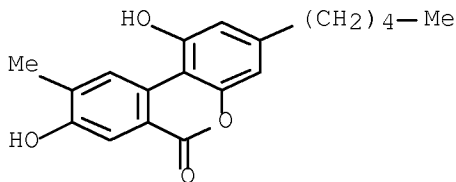
Hit Structure

CAS Registry Number

89368-18-3 CAPLUS

Chemical or Trade Name

6H-Dibenzo[b,d]pyran-6-one, 1,8-dihydroxy-9-methyl-3-pentyl- (CA INDEX NAME)

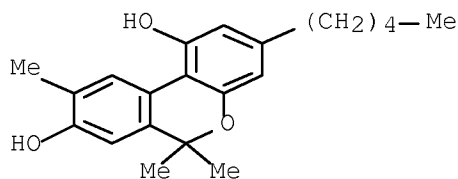


CAS Registry Number

53865-22-8 CAPLUS

Chemical or Trade Name

6H-Dibenzo[b,d]pyran-1,8-diol, 6,6,9-trimethyl-3-pentyl- (CA INDEX NAME)



OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD  
(3 CITINGS)

. L8 ANSWER 107 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number

1984:20400 CAPLUS [Full-text](#)

Document Number

100:20400

Title

Synthesis of condensed tannins. Part 10. Dioxane-linked profisetinidins

Author/Inventor

Young, Desmond A.; Ferreira, Daneel; Roux, David G.

Patent Assignee/Corporate Source

Dep. Chem., Univ. Orange Free State, Bloemfontein, 9300, S. Afr.

Source

Journal of the Chemical Society, Perkin Transactions 1: Organic and Bio-Organic Chemistry (1972-1999) ( 1983), (9), 2031-5 CODEN: JCPRB4; ISSN: 0300-922X

Document Type

Journal

Language

English

Abstract

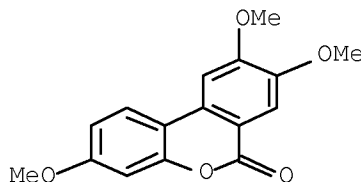
The dimeric bis(trihydroxyflavan) I (R = H, R1 =  $\beta$ -H) was isolated from the heartwood of *Acacia mearmsii* and characterized as its hexamethyl ether I (R = Me, R1 =  $\beta$ -H) (II). II and its isomer I (R = Me, R1 =  $\alpha$ -H) were prepared by self-condensation of the tri-Me ether of (+)-mollisacadin with BF<sub>3</sub>.Et<sub>2</sub>O in dioxane at room temperature for 4.5 h. Simple and complex dibenzo- $\alpha$ -pyrones were also obtained from the heartwood extract

Hit Structure

CAS Registry Number  
88038-06-6 CAPLUS

Chemical or Trade Name

6H-Dibenzo[b,d]pyran-6-one, 3,8,9-trimethoxy- (CA INDEX NAME)



OS.CITING REF COUNT: 8 THERE ARE 8 CAPLUS RECORDS THAT CITE THIS RECORD  
(8 CITINGS)

. L8 ANSWER 108 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number

1983:605818 CAPLUS [Full-text](#)

Document Number

99:205818

Title

Inhibitory effects of crude drugs on proteases. Tannins and related polyphenols

Author/Inventor

Okuda, Takuo; Yoshida, Takashi; Hatano, Tsutomu; Kuwahara, Masaaki; Iida, Seichi

Patent Assignee/Corporate Source

Fac. Pharm. Sci., Okayama Univ., Okayama, Japan

Source

Wakanyaku Shinpojumu, [Kiroku] (1982), 15, 111-18 CODEN: WSHIDO; ISSN: 0301-9993

Document Type

Journal

Language

Japanese

Abstract

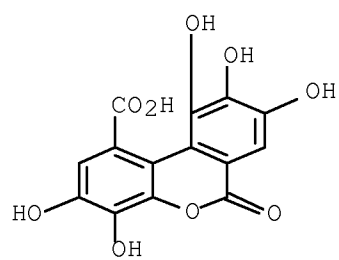
On the basis of the observation that most of the crude drugs which strongly inhibit proteases are rich in tannin, the correlation of antiplasmin activity and tannin content was investigated for each crude drug and tannin. The inhibitory activity (Rip) was found generally proportional to the tannin content (tRA). However, some differences of the ratio of Rip to RA were exhibited, depending on the type of tannin contained in each crude drug. The ratios of ellagitannins were generally higher than that of tannic acid JP, which is composed of gallotannins, and those of some condensed tannins. The extract of the rhizome of *Sanguisorba officinalis*, which is rich in condensed tannin, showed an exceptionally high ratio of Rip to RA. Upon fractionation, the constituents of some fractions from *S. officinalis* which showed large Rip values and small RA values were found to be ellagic acid [476-66-4] and luteic acid [ 476-67-5]. Apparently, the tannins and the polyphenols derivable from hexahydroxydiphenic acid possess strong inhibitory activity on plasmin. Expts. with different enzymes and substrates showed that the inhibitory activity of ellagitannins on plasmin is stronger than that of the other tannins, regardless of the substrate; but ellagic acid is active only in expts. employing plasmin and fibrin.

Hit Structure

CAS Registry Number  
476-67-5 CAPLUS

Chemical or Trade Name

6H-Dibenzo[b,d]pyran-1-carboxylic acid, 3,4,8,9,10-pentahydroxy-6-oxo-  
(CA INDEX NAME)



.L8 ANSWER 109 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number

1983:198022 CAPLUS [Full-text](#)

Document Number

98:198022

Title

Diphenyldiamines with o,o'-attached lactone radical

Author/Inventor

Migachev, G. I.; Terent'ev, A. M.; Zelenina, E. N.

Patent Assignee/Corporate Source

USSR

Source

U.S.S.R. From: Otkrytiya, Izobret., Prom. Obratztsy, Tovarnye Znaki 1982, (31), 126. CODEN: URXXAF

Document Type

Patent

Language

Russian

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
SU 952845	A1	19820823	SU 1979-2804693	19790725

Abstract

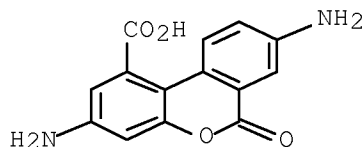
Title lactones I (R, R1 = H, CO2H or form groups COO or OCO) were prepared by heating nitrocarboxylic acids II (R2, R3 = H, NO2, CO2H) at 100-250° in a polar aprotic solvent. After the evolution of NO has stopped, the reaction mixture is hydrogenated over Raney Ni at 70-150°/20-90 atmospheric

Hit Structure

CAS Registry Number  
84487-40-1 CAPLUS

Chemical or Trade Name

6H-Dibenzo[b,d]pyran-1-carboxylic acid, 3,8-diamino-6-oxo- (CA INDEX NAME)



.L8 ANSWER 110 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number

1982:492088 CAPLUS [Full-text](#)

Document Number

97:92088

Title

Synthesis and reactions of 3,8,10-trinitro-6H-dibenzo[b,d]pyran-6-one in DMSO and DMF

Author/Inventor

Andrievskii, A. M.; Poplavskii, A. N.; Dyumaev, K. M.

Patent Assignee/Corporate Source

Nauchno-Issled. Inst. Org. Poluprod. Krasitelei, Moscow, 103787, USSR

Source

Khimiya Geterotsiklicheskikh Soedinenii (1982), (5), 703 CODEN: KGSSAQ; ISSN: 0453-8234

Document Type

Journal

Language

Russian

Abstract

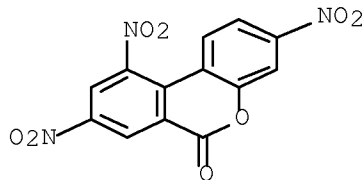
Oxidation of I with 30% H2O2-H2SO4 gave 76% II, which on heating in Me2SO gave III (R = OH) and in DMF gave III (R = Me2N). The same products were formed by heating 2,3,5-[2,4-(O2N)2C6H3](O2N)2C6H2CO2H in the same solvents.

Hit Structure

CAS Registry Number  
82766-04-9 CAPLUS

Chemical or Trade Name

6H-Dibenzo[b,d]pyran-6-one, 3,8,10-trinitro- (CA INDEX NAME)



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD  
(1 CITINGS)

.L8 ANSWER 111 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number

1982:223258 CAPLUS [Full-text](#)

Document Number

96:223258

Title

Preparation of an active substance having medicinal properties from plants belonging to the Melastomataceae family

Author/Inventor

Shah, Virbala; De, Souza Noel Hohn; Bhat, Sujata Vasudev; Dornauer, H; Lakdawala, Aftab Dawoodbhai; Dahadwalla, Alihussein Nomanbha

Patent Assignee/Corporate Source

Hoechst Pharmaceuticals Ltd., India  
Source  
Indian, 15 pp. CODEN: INXXAP  
Document Type  
Patent  
Language  
English  
Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
IN 148938	A1	19810725	IN 1978-BO168	19780607

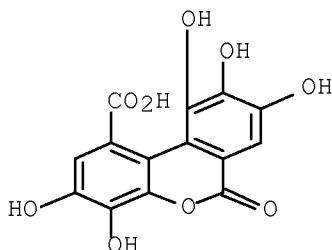
#### Abstract

Pharmacol. active compds., I, II and III (R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub> = H, Na<sup>+</sup>, K<sup>+</sup>, NH<sub>4</sub><sup>+</sup>, glucosammonium, triethylammonium or ethanolammonium) are isolated from Melastomatoceae plant family and have antiallergic and bronchospasmolytic properties. Dried and powdered shoots of *Osbeckia Stellata* were repeatedly extracted with H<sub>2</sub>O at 60-70° for 5 h. The mixture was filtered and the filtrates were freeze-dried to give a brown powder. This was then acidified with 1 N HCl and filtered. The residual solid was washed repeatedly with H<sub>2</sub>O till the pH of the washings was 4-6 and then the washings were dried in vacuo to yield a powder. Alkali treatment, followed by adjustment of the pH to 7 with CO<sub>2</sub> and freeze-drying of the solution gave a light brown powder. The IR spectrum of the substance is given. This active substance provided 75% protection against passive cutaneous anaphylaxis in laboratory animals (5 mg/kg).

#### Hit Structure

CAS Registry Number  
476-67-5 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-1-carboxylic acid, 3,4,8,9,10-pentahydroxy-6-oxo-  
(CA INDEX NAME)



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD  
(1 CITINGS)

L8 ANSWER 112 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number

1982:19421 CAPLUS [Full-text](#)

Document Number

96:19421

Title

Constituents of *Eupomatia* species. VII. Dienone-phenol and dienol-benzene rearrangements in the eupodienone-1 series

Author/Inventor

Bowden, Bruce F.; Read, Roger W.; Taylor, Walter C.

Patent Assignee/Corporate Source

Dep. Org. Chem., Univ. Sydney, Sydney, 2006, Australia

Source

Australian Journal of Chemistry (1981), 34(4), 799-817 CODEN: AJCHAS; ISSN: 0004-9425

Document Type

Journal

Language

English

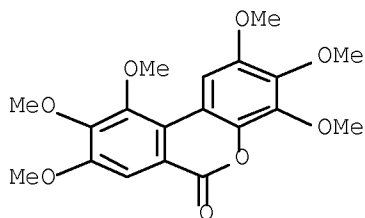
#### Abstract

Rearrangement of eupodienone-1 (I) and derivs., including certain dienols, under a variety of acidic conditions produced dibenzocyclooctene derivs. Treatment of I with H<sub>2</sub>SO<sub>4</sub>-Ac<sub>2</sub>O at 0° gave II. Also, treatment of dienol III in aqueous dioxane with H<sub>2</sub>SO<sub>4</sub> gave the alc. IV. Spectroscopic evidence and chemical degradation showed that in the rearrangements alkyl rather than aryl group migration had occurred. The stereochem. of the products is discussed.

#### Hit Structure

CAS Registry Number  
80141-08-8 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 2,3,4,8,9,10-hexamethoxy- (CA INDEX NAME)



OS.CITING REF COUNT: 6 THERE ARE 6 CAPLUS RECORDS THAT CITE THIS RECORD  
(6 CITINGS)

L8 ANSWER 113 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number  
1981:511699 CAPLUS [Full-text](#)

Document Number  
95:111699

Title  
Alnusiin, a novel ellagitannin from *Alnus sieboldiana* fruits

Author/Inventor  
Yoshida, Takashi; Memon, M. Usman; Okuda, Takuo

Patent Assignee/Corporate Source  
Fac. Pharmaceut. Sci., Okayama Univ., Okayama, Japan

Source  
Heterocycles (1981), 16(7), 1085-8 CODEN: HTCYAM; ISSN: 0385-5414

Document Type  
Journal

Language  
English

Abstract  
A new ellagitannin, named alnusiin (I), has been isolated from the fruits of *A. sieboldiana*. The structure was elucidated by chemical and spectral means.

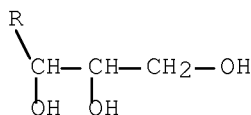
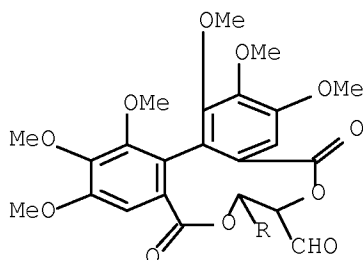
Hit Structure

CAS Registry Number  
78837-02-2 CAPLUS

Chemical or Trade Name  
Alnusiin, trideca-O-methyl- (9CI) (CA INDEX NAME)

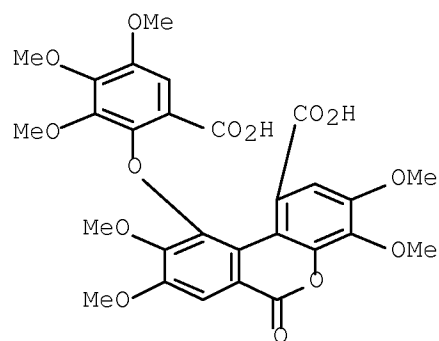
CM  
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CRN 78837-01-1  
CME C26 H30 O14



CM  
2

CRN 78837-00-0  
CME C28 H26 O14

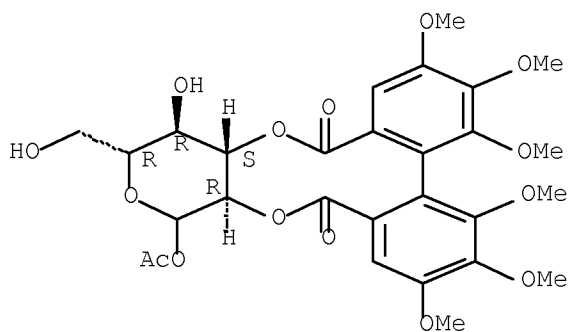


CAS Registry Number  
78837-04-4 CAPLUS

Chemical or Trade Name  
Alnusiin, trideca-O-methyl-, acetate (9CI) (CA INDEX NAME)

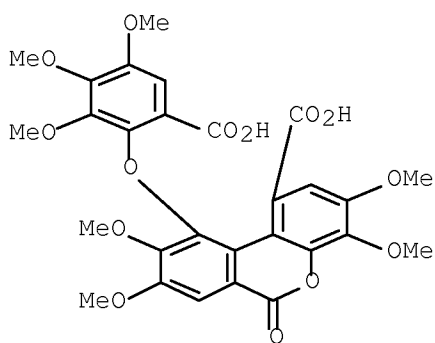
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CRN 78837-03-3  
CME C28 H32 O15



CM  
2

CRN 78837-00-0  
CMF C28 H26 O14

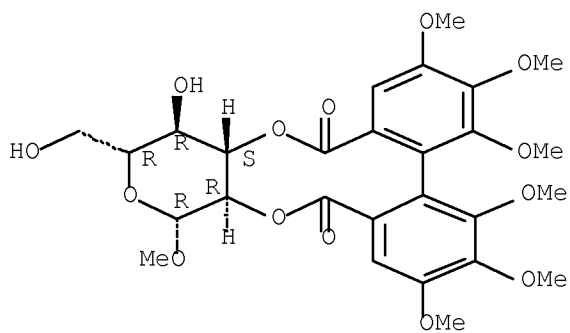


CAS Registry Number  
79026-29-2 CAELUS

Chemical or Trade Name  
β-Alnusiin, tetradeca-O-methyl- (9CI) (CA INDEX NAME)

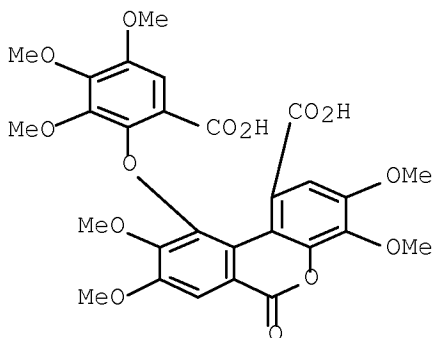
CM  
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CRN 79026-28-1  
CMF C27 H32 O14



CM  
2

CRN 78837-00-0  
CMF C28 H26 O14



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD  
(1 CITINGS)

L8 ANSWER 114 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number

1980:615211 CAPLUS [Full-text](#)

Document Number

93:215211

Title

The metabolism of ellagic acid in the rat

Author/Inventor

Doyle, B.; Griffiths, L. A.

Patent Assignee/Corporate Source

Dep. Biochem., Univ. Birmingham, Birmingham, B15 2TT, UK

Source

Xenobiotica (1980), 10(4), 247-56 CODEN: XENOBH; ISSN: 0049-8254

Document Type

Journal

Language

English

Abstract

In rats, 10% of the dose of ellagic acid (I) [476-66-4] (100 mg, orally) was excreted as 3,8-dihydroxy-6H-dibenzo[b,d]pyran-6-one (II) [1143-70-0] in urine and feces. A second unidentified metabolite was present in urine and feces. These metabolites were not formed in germ-free rats but were formed when I was incubated with microorganisms from rat gastrointestinal tract, showing a microfloral origin. After i.p. administration of I (50 mg) a 3rd metabolite was present in urine. No unchanged I was present in urine or feces of normal rats, but small amts. were present in feces of germ-free rats. After oral administration of I, 2 conjugates of II were present in bile, whereas i.p. administration resulted in biliary excretion of 3 conjugates of an unidentified metabolite.

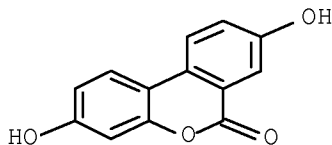
Hit Structure

CAS Registry Number

1143-70-0 CAPLUS

Chemical or Trade Name

6H-Dibenzo[b,d]pyran-6-one, 3,8-dihydroxy- (CA INDEX NAME)



OS.CITING REF COUNT: 29 THERE ARE 29 CAPLUS RECORDS THAT CITE THIS  
RECORD (29 CITINGS)

L8 ANSWER 115 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number

1980:58501 CAPLUS [Full-text](#)

Document Number

92:58501

Title

2,7-Bis(alkylaminoalkoxy)-9-phenanthrol and alkoxy ethers

Author/Inventor

Meyer, Donald R.; Sill, Arthur D.; Tieman, Paul L.

Patent Assignee/Corporate Source

Richardson-Merrell Inc., USA

Source

U.S., 13 pp. CODEN: USXXAM

Document Type

Patent

Language

English

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4169897	A	19791002	US 1976-740804	19761111
ZA 7308207	A	19750226	ZA 1973-8207	19731023
AU 7361883	A	19750501	AU 1973-61883	19731026
CA 1042439	A1	19781114	CA 1973-184541	19731029

GB 1420377	A	19760107	GB 1973-58266	19731217
FR 2211242	A1	19740719	FR 1973-45518	19731219
JP 49088852	A	19740824	JP 1973-141923	19731220
US 4059702	A	19761122	US 1976-740806	19761111
JP 55089262	A	19800705	JP 1978-156767	19781219
JP 58014432	B	19830318		

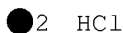
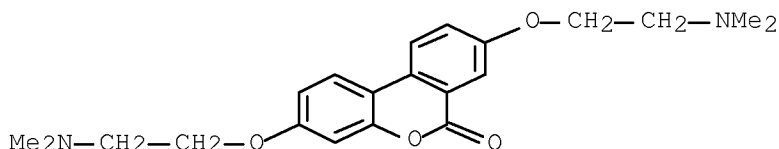
#### Abstract

9-Phenanthrol derivs. I (R, R1 = H, C1-6 alkyl, alkenyl, cycloalkyl; RR1 = alkylene containing optional hetero atoms; R2 = H, C1-4 alkyl; n = 2-6), dibenzo[b,d]pyran-6-one, and 6(5H)-phenanthridinone derivs., effective antiviral agents at 0.1-500 mg/kg in mice, were prepared. Thus, 0.085 mol CH2N2 in Et2O was added to a solution of 0.028 mol fluorenone II (R = R1 = Et, n = 2) in Et2O-MeOH at 10-28°, the mixture stirred 24 h at room temperature and treated with dilute NaOH, and the ether exts. dried and treated with 3.8 g Girard Reagent T to give I (R = R1 = Et, R2 = Me, n = 2).

#### Hit Structure

CAS Registry Number  
53395-17-8 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3,8-bis[2-(dimethylamino)ethoxy]-,  
hydrochloride (1:2) (CA INDEX NAME)



OS.CITING REF COUNT: 10 THERE ARE 10 CAPLUS RECORDS THAT CITE THIS RECORD (10 CITINGS)

. L8 ANSWER 116 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number

1980:41620 CAPLUS [Full-text](#)

Document Number

92:41620

Title

Study in a series of biphenyl-2-carboxylic and fluorene-4-carboxylic acid derivatives

Author/Inventor

Migachev, G. I.

Patent Assignee/Corporate Source

Nauchno-Issled. Inst. Plast. Mass, Moscow, USSR

Source

Zhurnal Vsesoyuznogo Khimicheskogo Obshchestva im. D. I. Mendeleeva (1979), 24(4), 395-7 CODEN: ZVKOA6; ISSN: 0373-0247

Document Type

Journal

Language

Russian

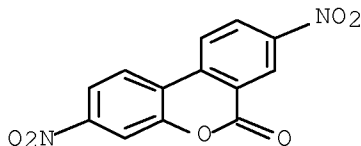
Abstract

Nitration of 2-PhC6H4CO2H and 4-fluorene-carboxylic acid with HNO3 (d. 1.42-1.50) followed the same orientation paths to give, resp. 4,2-O2N[2,4-(O2N)2C6H3]C3H3CO2H and I. Several reduction-ring closure reactions of some of the products were studied; thus, I with Fe gave II and with Zn gave III.

#### Hit Structure

CAS Registry Number  
63636-78-2 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3,8-dinitro- (CA INDEX NAME)



OS.CITING REF COUNT: 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD (4 CITINGS)

.L8 ANSWER 117 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number  
1979:439035 CAPLUS [Full-text](#)

Document Number  
91:39035

Title  
Studies of ortho-substituted derivatives of biphenyl. I. Nitration of biphenyl-2-carboxylic acid and chemical properties of its nitro-substituted derivatives

Author/Inventor  
Migachev, G. I.

Patent Assignee/Corporate Source  
Nauchno-Issled. Inst. Plast. Mass, Moscow, USSR

Source  
Zhurnal Organicheskoi Khimii (1979), 15(3), 567-72 CODEN: ZORKAE; ISSN: 0514-7492

Document Type  
Journal

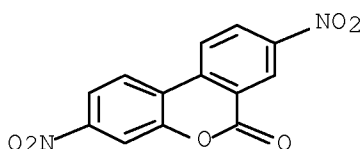
Language  
Russian

Abstract  
Nitration of 2-PhC<sub>6</sub>H<sub>4</sub>CO<sub>2</sub>H with HNO<sub>3</sub> (d. 1.42, 1.46 and 1.51) afforded 7:2 2- and 4-O<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>C<sub>6</sub>H<sub>4</sub>CO<sub>2</sub>H-2, 7:4 2- and 4-O<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>C<sub>6</sub>H<sub>3</sub>(CO<sub>2</sub>H)NO<sub>2</sub>-2,4 and 2,4-(O<sub>2</sub>N)<sub>2</sub>C<sub>6</sub>H<sub>3</sub>C<sub>6</sub>H<sub>3</sub>(CO<sub>2</sub>H)NO<sub>2</sub>-2,4, resp. The high ortho/para ratio in the mononitration product resulted from the participation of the CO<sub>2</sub>H group in converting intermediate  $\pi$ - $\sigma$ -complex. Reduction of the o-nitro derivs. with Fe or SnCl<sub>2</sub> afforded phenanthridinones, and heating the o-nitro derivs. with DMF gave dibenzo[b,d]pyran-6-ones.

Hit Structure

CAS Registry Number  
63636-78-2 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3,8-dinitro- (CA INDEX NAME)



OS.CITING REF COUNT: 7 THERE ARE 7 CAPLUS RECORDS THAT CITE THIS RECORD  
(7 CITINGS)

.L8 ANSWER 118 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number  
1978:182782 CAPLUS [Full-text](#)

Document Number  
88:182782

Title  
Antiallergic 9-oxo-11-hydroxy-5H,9H-[2]benzopyrano[4,3-g][1]benzopyrans

Author/Inventor  
Devlin, John P.; Bauen, Armin; Possanza, Genus J.; Stewart, P. Brian

Patent Assignee/Corporate Source  
Pharma Res. Canada Ltd., Pointe Claire, QC, Can.

Source  
Journal of Medicinal Chemistry (1978), 21(5), 480-3 CODEN: JMCMAR; ISSN: 0022-2623

Document Type  
Journal

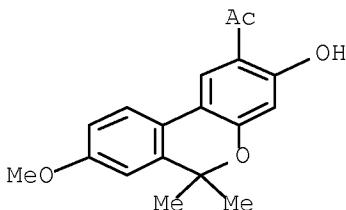
Language  
English

Abstract  
Nine title compds. I (R = H or Br, R<sub>1</sub> = H, halo, OH, OMe, OPr, or OCH<sub>2</sub>CH<sub>2</sub>OH, and R<sub>2</sub> = H or Me) were synthesized by condensation of the appropriate 2-acetyl-3-hydroxy-6H-dibenzo[b,d]pyran with diethyl carbonate in the presence of NaH. Several I, in addition to being potent inhibitors of the passive cutaneous anaphylaxis reaction of rats against egg albumin challenge, blocked the effects of several mediators of anaphylaxis in isolated smooth muscle preps.

Hit Structure

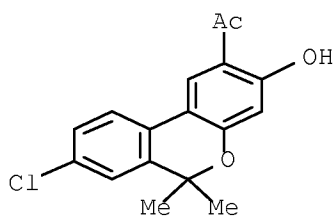
CAS Registry Number  
52156-88-4 CAPLUS

Chemical or Trade Name  
Ethanone, 1-(3-hydroxy-8-methoxy-6,6-dimethyl-6H-dibenzo[b,d]pyran-2-yl)-  
(CA INDEX NAME)



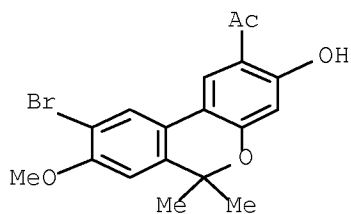
CAS Registry Number  
52156-89-5 CAPLUS

Chemical or Trade Name  
Ethanone, 1-(8-chloro-3-hydroxy-6,6-dimethyl-6H-dibenzo[b,d]pyran-2-yl)-  
(CA INDEX NAME)



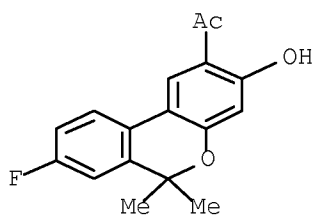
CAS Registry Number  
52156-92-0    CAPLUS

Chemical or Trade Name  
Ethanone, 1-(9-bromo-3-hydroxy-8-methoxy-6,6-dimethyl-6H-dibenzo[b,d]pyran-2-yl)-  
(CA INDEX NAME)



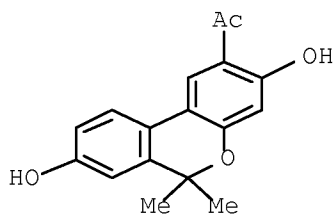
CAS Registry Number  
52156-93-1    CAPLUS

Chemical or Trade Name  
Ethanone, 1-(8-fluoro-3-hydroxy-6,6-dimethyl-6H-dibenzo[b,d]pyran-2-yl)-  
(CA INDEX NAME)



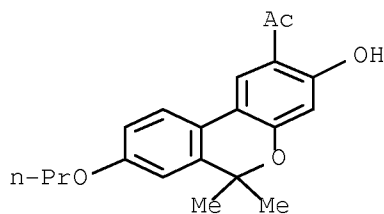
CAS Registry Number  
52156-95-3    CAPLUS

Chemical or Trade Name  
Ethanone, 1-(3,8-dihydroxy-6,6-dimethyl-6H-dibenzo[b,d]pyran-2-yl)-  
(CA INDEX NAME)



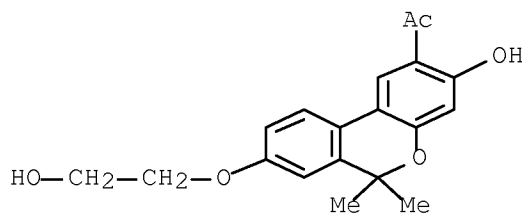
CAS Registry Number  
66432-00-6    CAPLUS

Chemical or Trade Name  
Ethanone, 1-(3-hydroxy-6,6-dimethyl-8-propoxy-6H-dibenzo[b,d]pyran-2-yl)-  
(CA INDEX NAME)



CAS Registry Number  
66432-01-7 CAPLUS

Chemical or Trade Name  
Ethanone, 1-[3-hydroxy-8-(2-hydroxyethoxy)-6,6-dimethyl-6H-dibenzo[b,d]pyran-2-yl]- (CA INDEX NAME)



L8 ANSWER 119 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN  
Accession Number

1977:502120 CAPLUS [Full-text](#)

Document Number  
87:102120

Title

Synthesis of substituted derivatives of 6H-dibenzo[b,d]pyran-6-one

Author/Inventor

Migachev, G. I.; Andrievskii, A. M.; Efimova, L. V.

Patent Assignee/Corporate Source

Nauchno-Issled. Inst. Org. Poluprod. Krasitelei, Moscow, USSR

Source

Khimiya Geterotsiklicheskikh Soedinenii (1977 ), (5), 703-4 CODEN: KGSSAQ; ISSN: 0132-6244

Document Type

Journal

Language

Russian

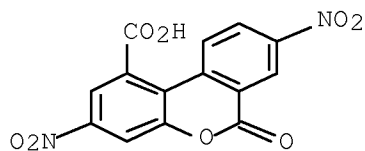
Abstract

Refluxing acids I (R, R2 = H, NO2; R4 = H, CO2H) in quinoline gave 34-97% dibenzopyranones.

Hit Structure

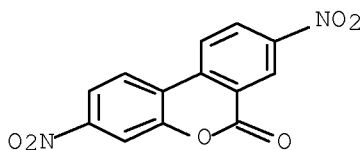
CAS Registry Number  
63636-77-1 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-1-carboxylic acid, 3,8-dinitro-6-oxo- (CA INDEX NAME)



CAS Registry Number  
63636-78-2 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3,8-dinitro- (CA INDEX NAME)



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD  
(1 CITINGS)

. L8 ANSWER 120 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number 1977:105196 CAPLUS [Full-text](#)

Document Number 86:105196

Title

Mass spectrometry of the oxidation products of  $\Delta^1$ - and  $\Delta^6$ -tetrahydrocannabinols

Author/Inventor

Inayama, Seiichi; Sawa, Aiko; Hosoya, Eikichi

Patent Assignee/Corporate Source

Sch. Med., Keio Univ., Tokyo, Japan

Source

Chemical & Pharmaceutical Bulletin (1976), 24(9), 2209-18 CODEN: CPBTAL; ISSN: 0009-2363

Document Type

Journal

Language

English

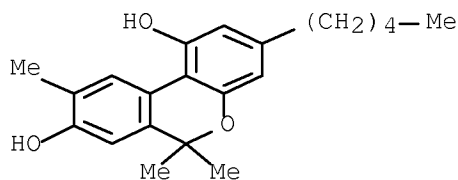
Abstract

The mass spectra of  $\Delta^1$ (I) and  $\Delta^6$ -tetrahydrocannabinol (II) and a number of their derivs. were determined. Structure correlations and principal fragmentation pathways for these compds. were studied with the aid of high-resolution mass spectrometry and of acetyl-d3 derivs. A typical fragmentation pattern was observed in spectra of both the I and the II series.

Hit Structure

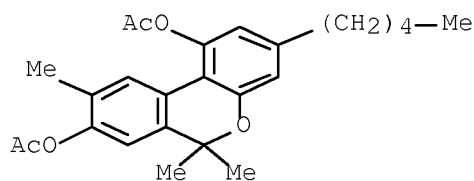
CAS Registry Number  
53865-22-8 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-1,8-diol, 6,6,9-trimethyl-3-pentyl- (CA INDEX NAME)



CAS Registry Number  
62042-02-8 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-1,8-diol, 6,6,9-trimethyl-3-pentyl-, 1,8-diacetate  
(CA INDEX NAME)



.L8 ANSWER 121 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number  
1977:66543 CAPLUS [Full-text](#)  
Document Number  
86:66543

Title  
Urinary sediments in sheep feeding on estrogenic clover. V. Seasonal changes in the excretion of components of calculi and sediments

Author/Inventor  
Nottle, M. C.

Patent Assignee/Corporate Source  
Anim. Health Lab., West. Aust. Dep. Agric., South Perth, Australia

Source  
Australian Journal of Agricultural Research ( 1976), 27(6), 867-71 CODEN: AJAE9; ISSN: 0004-9409

Document Type  
Journal

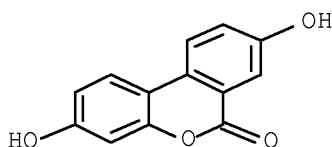
Language  
English

Abstract  
Components of urinary calculi and sediments were analyzed from early July to late October in 6 sheep grazing on pasture with estrogenic Trifolium subterraneum. Levels of these components were lowest in July-August and reached their peaks during the later months. The detected ranges for formononetin [485-72-3] were 0.3-2.7 mg %, for equol [531-95-3] 4-108 mg %, 4-O-methylequol [61514-94-1] traces to 39 mg %. Also detected throughout the exptl. period were urolithin A [1143-70-0], urolithin B [1139-83-9], indirubin [479-41-4], and indigotin [482-89-3]. Biochanin A [491-80-5] was detected only in September-October.

Hit Structure

CAS Registry Number  
1143-70-0 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3,8-dihydroxy- (CA INDEX NAME)



OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD  
(2 CITINGS)

.L8 ANSWER 122 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number  
1977:50484 CAPLUS [Full-text](#)  
Document Number  
86:50484

Title  
Synthesis and structure-activity relations of 5H,11H-[2]benzopyrano[4,3-g][1]benzopyran-9-carboxylic acids

Author/Inventor  
Devlin, John P.; Freter, Kurt; Stewart, P. Brian

Patent Assignee/Corporate Source  
Pharma-Res. Canada Ltd., Pointe Claire, QC, Can.

Source  
Journal of Medicinal Chemistry (1977), 20(2), 205-9 CODEN: JMCMAR; ISSN: 0022-2623

Document Type  
Journal

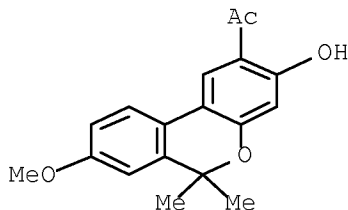
Language  
English

Abstract  
A series of 25 title compds. [I: R1 = H, OMe, Br; R2 = H, Cl, F, OH, OMe, OPr, OAc, NO2, SO3H, NH2, O(CH2)2OH; R3 = H, OMe; R4 = H, Me, Bu, O; R5 = H, Cl, NO2, OMe, OH, NH2; R6 = H, Me, OH] was prepared by the condensation of the appropriate 2-acetyl-3-hydroxy-6H-dibenzo[b,d]pyran derivative with di-Et oxalate [95-92-1], followed by ring closure and acid hydrolysis. Many of the compds. are potent inhibitors of the passive cutaneous anaphylaxis reaction of rats against egg albumin challenge. Structure-activity relations are discussed.

Hit Structure

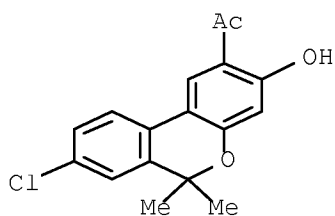
CAS Registry Number  
52156-88-4 CAPLUS

Chemical or Trade Name  
Ethanone, 1-(3-hydroxy-8-methoxy-6,6-dimethyl-6H-dibenzo[b,d]pyran-2-yl)-  
(CA INDEX NAME)



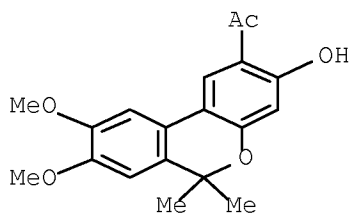
CAS Registry Number  
52156-89-5 CAPLUS

Chemical or Trade Name  
Ethanone, 1-(8-chloro-3-hydroxy-6,6-dimethyl-6H-dibenzo[b,d]pyran-2-yl)-  
(CA INDEX NAME)



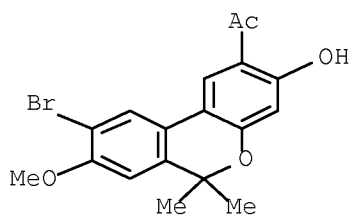
CAS Registry Number  
52156-91-9 CAPLUS

Chemical or Trade Name  
Ethanone, 1-(3-hydroxy-8,9-dimethoxy-6,6-dimethyl-6H-dibenzo[b,d]pyran-2-yl)- (CA INDEX NAME)



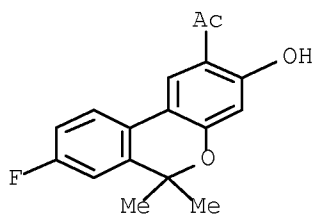
CAS Registry Number  
52156-92-0 CAPLUS

Chemical or Trade Name  
Ethanone, 1-(9-bromo-3-hydroxy-8-methoxy-6,6-dimethyl-6H-dibenzo[b,d]pyran-2-yl)- (CA INDEX NAME)



CAS Registry Number  
52156-93-1 CAPLUS

Chemical or Trade Name  
Ethanone, 1-(8-fluoro-3-hydroxy-6,6-dimethyl-6H-dibenzo[b,d]pyran-2-yl)- (CA INDEX NAME)



Patent Assignee/Corporate Source

Dep. Pharm., Banaras Hindu Univ., Banaras, India

Source

Journal of Pharmaceutical Sciences (1976), 65(5), 772-3 CODEN: JPMSAE; ISSN: 0022-3549

Document Type

Journal

Language

English

Abstract

Shilajit [12040-71-0] extraction with solvents of graded polarity yielded triterpenes, sterols, aromatic carboxylic acids, ellagic acid [476-66-4], 3,4-benzocoumarins, and  $\alpha$ -amino acids. Further separation and characterization led to the identification of euphol [514-47-6], taraxerol [127-22-0], sitosterol [83-46-5], 2 partially characterized triterpenes, a sterol, benzoic acid [65-85-0], m-hydroxybenzoic acid [99-06-9], 7-hydroxy-3,4-benzocoumarin [1139-83-9], 7-methoxy-3,4-benzocoumarin [1143-62-0], 2',7-dihydroxy-3,4-benzocoumarin [1143-70-0], 2-phenolic compds., and 18 free amino acids. A similar component pattern was seen for Euphorbia royleana latex suggesting shilajit originated from this source.

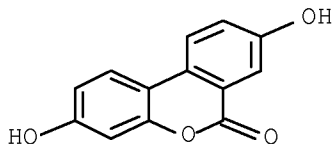
Hit Structure

CAS Registry Number

1143-70-0 CAPLUS

Chemical or Trade Name

6H-Dibenzo[b,d]pyran-6-one, 3,8-dihydroxy- (CA INDEX NAME)



OS.CITING REF COUNT: 18 THERE ARE 18 CAPLUS RECORDS THAT CITE THIS RECORD (19 CITINGS)

L8 ANSWER 124 OF 165 CAPLUS COPYRIGHT 2011 ACS ON STN

Accession Number

1976:478023 CAPLUS [Full-text](#)

Document Number

85:78023

Title

Derivatives of 6(5H)-phenanthridinone

Author/Inventor

Meyer, Donald R.; Sill, Arthur D.

Patent Assignee/Corporate Source

Richardson-Merrell Inc., USA

Source

U.S., 13 pp. Division of U.S. 3,859,312. CODEN: USXXAM

Document Type

Patent

Language

English

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3953455	A	19760427	US 1974-505662	19740913
US 3859312	A	19750107	US 1972-317146	19721221
CA 1042443	A1	19781114	CA 1973-184536	19731029
IL 43669	A	19780831	IL 1973-43669	19731121
GB 1421075	A	19760114	GB 1973-58261	19731217
FR 2211237	A1	19740719	FR 1973-45513	19731219
JP 4908848	A	19740824	JP 1973-141916	19731220

Abstract

Tricyclic compds. I [R = NBu<sub>2</sub>, n = 3, X = NHC(O) (all X's to be inserted clockwise), CH:C(OH), CH:C(OMe); R = NEt<sub>2</sub>, n = 3, X = OC(O)]<sub>2</sub>HCl, useful as antiviral agents, were prepared by treating the acid chloride of I [R = H, n = 0, X = C(O)] (II) with Bu<sub>2</sub>N(CH<sub>2</sub>)<sub>3</sub>OH and ring-expanding I [R = NBu<sub>2</sub>, n = 3, X = C(O)]<sub>2</sub>HCl with NaN<sub>3</sub> to give I [R = NBu<sub>2</sub>, n = 3, X = NHC(O)]<sub>2</sub>HCl or with CH<sub>2</sub>N<sub>2</sub> to give I [R = NBu<sub>2</sub>, n = 3, X = CH:C(OMe)] and CH:C(OH)]<sub>2</sub>HCl. Reaction of II with 30% H<sub>2</sub>O<sub>2</sub> gave I [R = H, n = 0, X = OC(O)] which reacted with Et<sub>2</sub>N(CH<sub>2</sub>)<sub>3</sub>Cl to give I [R = NEt<sub>2</sub>, n = 3, X = OC(O)]<sub>2</sub>HCl. Also prepared were I [R = e.g. NMe<sub>2</sub>, dialkylamino, piperidino, morpholino; n = 2, 3; X = C(O)] or their di-HCl salts. I [R = NEt<sub>2</sub>, n = 3, X = OC(O)]<sub>2</sub>HCl was effective at 50  $\mu$ g/kg (mice).

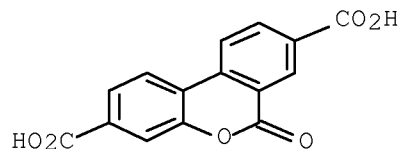
Hit Structure

CAS Registry Number

53405-25-7 CAPLUS

Chemical or Trade Name

6H-Dibenzo[b,d]pyran-3,8-dicarboxylic acid, 6-oxo- (CA INDEX NAME)

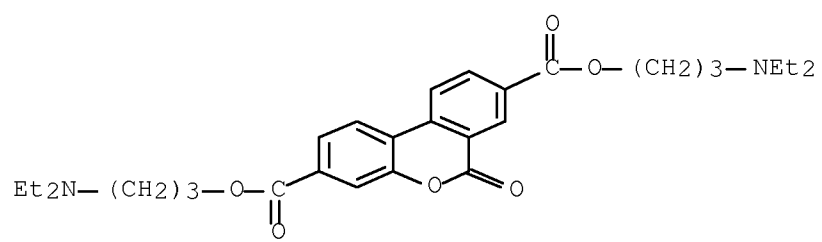


CAS Registry Number

53405-26-8 CAPLUS

Chemical or Trade Name

6H-Dibenzo[b,d]pyran-3,8-dicarboxylic acid, 6-oxo-, 3,8-bis[3-(diethylamino)propyl] ester, hydrochloride (1:2) (CA INDEX NAME)



●2 HCl

L8 ANSWER 125 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number  
1976:180085 CAPLUS [Full-text](#)

Document Number  
84:180085

Title  
Derivatives of 9-phenanthrene

Author/Inventor  
Meyer, Donald R.; Sill, Arthur D.  
Patent Assignee/Corporate Source  
Richardson-Merrell Inc., USA

Source  
U.S., 12 pp. Division of U.S. 3,859,312. CODEN: USXXAM

Document Type  
Patent

Language  
English

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3933893	A	19760120	US 1974-505661	19740913
US 3859312	A	19750107	US 1972-317146	19721221
CA 1042443	A1	19781114	CA 1973-184536	19731029
IL 43669	A	19780831	IL 1973-43669	19731121
GB 1421075	A	19760114	GB 1973-58261	19731217
FR 2211237	A1	19740719	FR 1973-45513	19731219
JP 49088848	A	19740824	JP 1973-141916	19731220

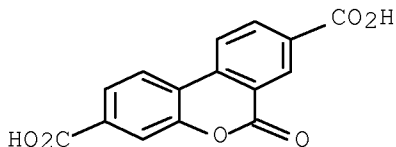
Abstract

The fluorenones I (R = dialkylamino, morpholino, piperidino, diallylamino; n = 2, 3, 5) were prepared by reaction of 9-oxofluorene-2,7-dicarbonyl chloride with R(CH<sub>2</sub>)<sub>n</sub>OH; ring expansion of I or 9-oxofluorene-2,7-dicarboxylic acid by HN<sub>3</sub>, CH<sub>2</sub>N<sub>2</sub>, and H<sub>2</sub>O<sub>2</sub>-H<sub>2</sub>SO<sub>4</sub> yielded II (X = NH, CH<sub>2</sub>, O; resp.). II (X = O) extended the survival time of mice infected with encephalomyocarditis virus.

Hit Structure

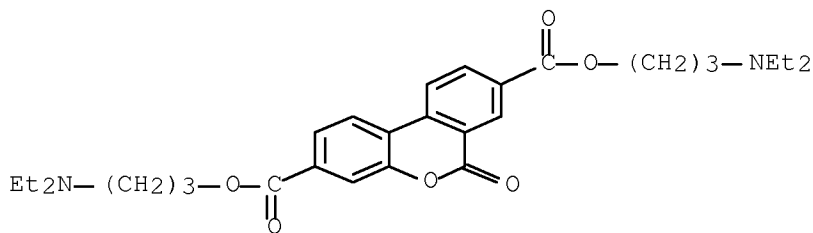
CAS Registry Number  
53405-25-7 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-3,8-dicarboxylic acid, 6-oxo- (CA INDEX NAME)



CAS Registry Number  
53405-26-8 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-3,8-dicarboxylic acid, 6-oxo-,  
3,8-bis[3-(diethylamino)propyl] ester, hydrochloride (1:2) (CA INDEX NAME)



● 2 HCl

L8 ANSWER 126 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number  
1976:164566 CAPLUS [Full-text](#)

Document Number  
84:164566

Title  
Synthesis of 2-arylnaphthalenes and dibenzocoumarins. II. Aromatization of tetrahydrodibenzocoumarins by palladium on charcoal: Synthesis of 2-arylnaphthalenes and dibenzocoumarins

Author/Inventor  
Chebaane, Khalifa; Guyot, Michele; Molho, Darius  
Patent Assignee/Corporate Source  
Lab. Chim., Mus. Natl. Hist. Nat., Paris, Fr.

Source  
Bulletin de la Societe Chimique de France ( 1975), (11-12, Pt. 2), 2521-6 CODEN: BSCFAS; ISSN: 0037-8968

Document Type

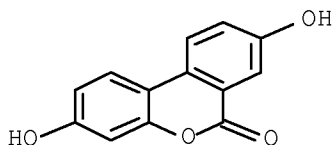
Journal  
Language  
French

**Abstract**  
Pd-C aromatization of dibenzocoumarins I (R = H, 8-OMe, 9-OMe, 10-OMe, 11-OMe, R1 = H, 4-OMe, 4-Me, 5-Me) gave the aryl naphthalenes II as well as III. The degree of ring cleavage and decarboxylation depended on the reaction conditions. The benzocoumarins IV (R2 = Me, OMe, R3 = OMe, R4 = H; R2 = OH, R3 = H, R4 = H, OMe; R2 = OMe, R3 = R4 = H) were aromatized without decarboxylation; only 4-MeC6H4Ph was formed in <10% yield. The esters V (R = H, 6-OMe; R1 = H, 4-OMe, 4-Me) were also aromatized by Pd-C, but the corresponding acids cyclized at the aromatization temperature

**Hit Structure**

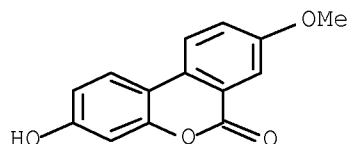
CAS Registry Number  
1143-70-0 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3,8-dihydroxy- (CA INDEX NAME)



CAS Registry Number  
35233-17-1 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3-hydroxy-8-methoxy- (CA INDEX NAME)



.L8 ANSWER 127 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number  
1976:121799 CAPLUS [Full-text](#)  
Document Number  
84:121799

Title  
2-Carboxy-4-oxo-4H,6H-(2)-benzopyrano-[3,4-f]-[1]- benzopyrans, esters, and salts  
Patent Assignee/Corporate Source  
Boehringer, C. H., Sohn, Fed. Rep. Ger.

Source  
Neth. Appl., 22 pp. CODEN: NAXXAN

Document Type  
Patent

Language  
Dutch

Patent Information

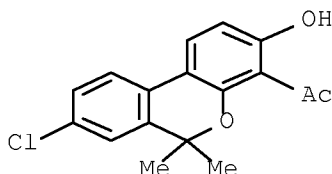
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
NL 7501862	A	19750820	NL 1975-1862	19750217
DE 2407631	A1	19750828	DE 1974-2407631	19740218

**Abstract**  
Benzopyranobenzopyrans I (R = H,OMe,OH,F,SO3H,Cl,NO2; R1 = H,OMe,Me; R2 = H,Me,Cl,OMe) and some related compds. (20 compds.) were prepared Thus, acetylation of II (R3 = H) and condensation of II (R3 = Ac) with EtO2CCO2Et gave I (R = R2 = H, R1 = OMe), which at 0.5 mg i.v. in rats caused a 50% decrease in the passive cutaneous anaphylaxis titer.

**Hit Structure**

CAS Registry Number  
57394-48-6 CAPLUS

Chemical or Trade Name  
Ethanone, 1-(8-chloro-3-hydroxy-6,6-dimethyl-6H-dibenzo[b,d]pyran-4-yl)-  
(CA INDEX NAME)



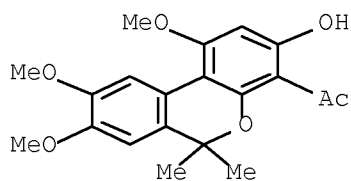
CAS Registry Number  
58630-27-6 CAPLUS

Chemical or Trade Name  
Ethanedioic acid, 1,2-diethyl ester, compd. with  
1-(3-hydroxy-1,8,9-trimethoxy-6,6-dimethyl-6H-dibenzo[b,d]pyran-4-

yl)ethanone (1:1) (CA INDEX NAME)

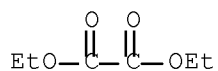
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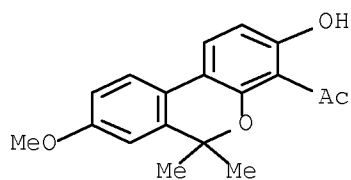
CM  
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CRN 95-92-1  
CMF C6 H10 O4



CAS Registry Number  
57394-21-5 CAPLUS

Chemical or Trade Name  
Ethanone, 1-(3-hydroxy-8-methoxy-6,6-dimethyl-6H-dibenzo[b,d]pyran-4-yl)-  
(CA INDEX NAME)

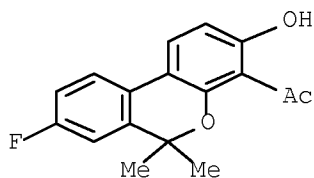


CAS Registry Number  
58630-23-2 CAPLUS

Chemical or Trade Name  
Ethanedioic acid, 1,2-diethyl ester, compd. with  
1-(8-fluoro-3-hydroxy-6,6-dimethyl-6H-dibenzo[b,d]pyran-4-yl)ethanone  
(1:1) (CA INDEX NAME)

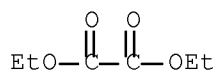
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CRN 57394-31-7  
CMF C17 H15 F O3



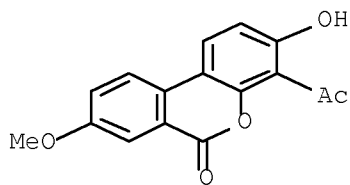
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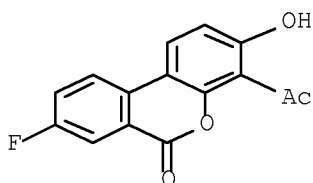
CAS Registry Number  
57394-24-8 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 4-acetyl-3-hydroxy-8-methoxy- (CA INDEX NAME)



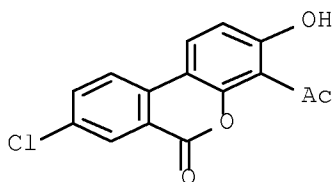
CAS Registry Number  
57394-34-0 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 4-acetyl-8-fluoro-3-hydroxy- (CA INDEX NAME)



CAS Registry Number  
57394-51-1 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 4-acetyl-8-chloro-3-hydroxy- (CA INDEX NAME)



L8 ANSWER 128 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN  
Accession Number  
1975:606230 CAPLUS [Full-text](#)  
Document Number  
83:206230  
Title  
2-Carboxy-4-oxo-4H,6H-[2]-benzopyrano-[3,4-f]-[1]- benzopyrans and their esters and salts  
Author/Inventor  
Devlin, John P.; Stewart, Patrick Brian; Freter, Kurt  
Patent Assignee/Corporate Source  
Boehringer, C. H., Sohn, Fed. Rep. Ger.  
Source  
Ger. Offen., 28 pp. CODEN: GWXXBX  
Document Type  
Patent  
Language  
German  
Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2407631	A1	19750828	DE 1974-2407631	19740218
AT 7500439	A	19770215	AT 1975-439	19750121
AT 339298	B	19771010		
US 3987186	A	19761019	US 1975-548033	19750207
BE 825642	A1	19750818	BE 1975-153447	19750217
NL 7501862	A	19750820	NL 1975-1862	19750217
JP 50116500	A	19750911	JP 1975-19660	19750217
GB 1492865	A	19771123	GB 1975-6652	19750217
FR 2261006	A1	19750912	FR 1975-5005	19750218
FR 2261006	B1	19780630		
AT 7607823	A	19770215	AT 1976-7823	19761021
AT 339300	B	19771010		

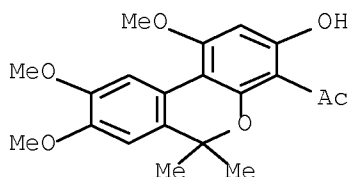
Abstract

Benzopyranobenzopyrancarboxylates I (R = R3-R5 = H, R1 = Me, R2 = OMe, OH, F, H, Cl; R = R5 = H, R1 = Me, R2 = R3 = H, OMe, R4 = OMe; R = Bu, R1 = H, Me, R2 = SO3H, R3 = R4 = H, R5 = Cl; R = R2-R5 = H, R1 = Pr; R = Et, R12 = O, R2-R5 = H; R = R3 = R4 = H, R1 = Me, R2 = SO3H, NO2, R5 = Cl; R = R3 = R4 = H, R1 = Me, R2 = H, SO3H, R5 = Me; R = H, R1 = Me, R2-R4 = H, R5 = Me, F; R = octyl, R1 = Me, R2 = Cl, R3-R5 = H; R = R2 = R4 = R5 = H, R1 = Me, R3 = Cl; R-R4 = H, R5 = Cl) were prepared. Thus 83% I (R = R2 = R3 = R5 = H, R1 = Me, R4 = OMe) was prepared by condensing the dibenzopyran II with Et oxalate. At 1 mg i.v. it gave 83% inhibition of passive cutaneous anaphylaxis, compared with 20% inhibition obtained with 1 mg 1,3-bis(2-carboxy-5-chromonyloxy)-2-propanol.

#### Hit Structure

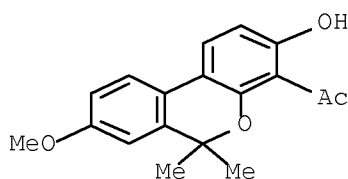
CAS Registry Number  
57394-56-6 CAFLUS

Chemical or Trade Name  
Ethanone, 1-(3-hydroxy-1,8,9-trimethoxy-6,6-dimethyl-6H-dibenzo[b,d]pyran-4-yl)- (CA INDEX NAME)



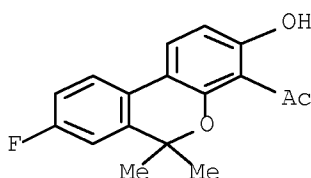
CAS Registry Number  
57394-21-5 CAFLUS

Chemical or Trade Name  
Ethanone, 1-(3-hydroxy-8-methoxy-6,6-dimethyl-6H-dibenzo[b,d]pyran-4-yl)- (CA INDEX NAME)



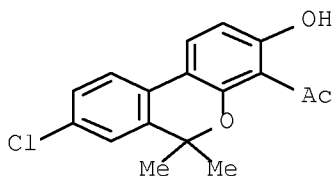
CAS Registry Number  
57394-31-7 CAFLUS

Chemical or Trade Name  
Ethanone, 1-(8-fluoro-3-hydroxy-6,6-dimethyl-6H-dibenzo[b,d]pyran-4-yl)- (CA INDEX NAME)



CAS Registry Number  
57394-48-6 CAFLUS

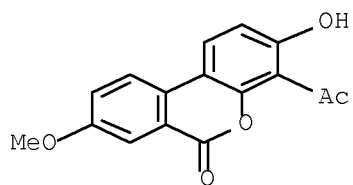
Chemical or Trade Name  
Ethanone, 1-(8-chloro-3-hydroxy-6,6-dimethyl-6H-dibenzo[b,d]pyran-4-yl)- (CA INDEX NAME)



CAS Registry Number  
57394-24-8 CAFLUS

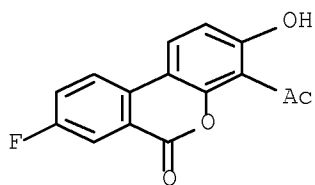
Chemical or Trade Name

6H-Dibenzo[b,d]pyran-6-one, 4-acetyl-3-hydroxy-8-methoxy- (CA INDEX NAME)



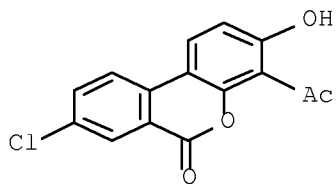
CAS Registry Number  
57394-34-0 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 4-acetyl-8-fluoro-3-hydroxy- (CA INDEX NAME)



CAS Registry Number  
57394-51-1 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 4-acetyl-8-chloro-3-hydroxy- (CA INDEX NAME)



.L8 ANSWER 129 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number  
1975:563996 CAPLUS [Full-text](#)

Document Number  
83:163996

Title  
Benzopyran derivatives

Author/Inventor  
Lauria, Francesco; Vecchietti, Vittorio; Tommasini, Raffaele; Passerini, Norina

Patent Assignee/Corporate Source  
Erba, Carlo, S.p.A., Italy

Source  
Ger. Offen., 42 pp. CODEN: GWXXBX

Document Type  
Patent

Language  
German

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2459076	A1	19750710	DE 1974-2459076	19741213
ZA 7407550	A	19751231	ZA 1974-7550	19741126
AU 7476128	A	19760610	AU 1974-76128	19741205
NL 7416454	A	19750701	NL 1974-16454	19741217
FI 7403678	A	19750628	FI 1974-3678	19741219
SE 7416126	A	19750630	SE 1974-16126	19741220
DK 7406801	A	19750825	DK 1974-6801	19741223
DD 115661	A5	19751012	DD 1974-183412	19741224
BE 823873	A1	19750416	BE 1974-151938	19741227
NO 7404713	A	19750630	NO 1974-4713	19741227
FR 2255895	A1	19750725	FR 1974-43124	19741227
JP 50096574	A	19750731	JP 1975-3007	19741227

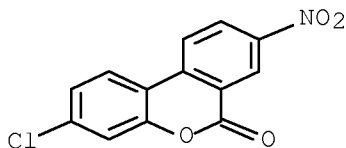
Abstract

Antidepressant dibenzopyrans I (R = NMe<sub>2</sub>, R<sub>1</sub> = H, X = O, H<sub>2</sub>, Me<sub>2</sub>; R = NH<sub>2</sub>, NHMe, R<sub>1</sub> = H, X = O; R = Cl, R<sub>1</sub> = 8-NO<sub>2</sub>, 8-NH<sub>2</sub>, X = O; R = H, R<sub>1</sub> = 7-NO<sub>2</sub>, 9-NO<sub>2</sub>, X = O) and the tetrahydro derivs. II (R<sub>2</sub> = H, R<sub>3</sub> = 2-NMe<sub>2</sub>, 2-NH<sub>2</sub>, 3-NMe<sub>2</sub>, 4-NMe<sub>2</sub>, 3-NHMe, 3-NH<sub>2</sub>; R<sub>2</sub> = OMe, R<sub>3</sub> = NMe<sub>2</sub>) were prepared. Thus, 2-ethoxycarbonylcyclohexanone was condensed with 4-Me<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>OH to give 70% II (R<sub>2</sub> = H, R<sub>3</sub> = 2-NMe<sub>2</sub>).

Hit Structure

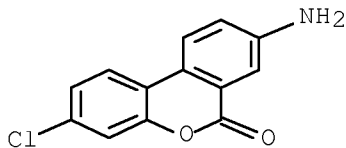
CAS Registry Number  
56825-78-6 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3-chloro-8-nitro- (CA INDEX NAME)



CAS Registry Number  
56825-81-1 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 8-amino-3-chloro- (CA INDEX NAME)



.L8 ANSWER 130 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number  
1975:547468 CAPLUS [Full-text](#)

Document Number  
83:147468

Title  
2-Carboxy-4-oxo-4H,10H-(2)-benzopyrano-(4,3-g)-(1)- benzopyrans and their salts

Patent Assignee/Corporate Source  
Boehringer, C. H., Sohn, Fed. Rep. Ger.

Source  
Austrian, 5 pp. CODEN: AUXXAK

Document Type  
Patent

Language  
German

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
AT 323161	B	19750625	AT 1973-7457	19730828

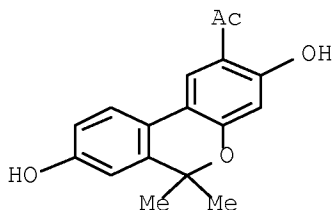
#### Abstract

Benzopyranobenzopyran (I, R = OH) was obtained in 20% yield by treatment of II with (CO<sub>2</sub>Et)<sub>2</sub> 40 min at 75°. Subsequent acetylation gave 65% II (R = OAc). Nitration of I (R = H) gave 45% I (R = NO<sub>2</sub>) and sulfonation of I (R = H) gave 21% I (R = SO<sub>3</sub>H). I was useful as allergy inhibitors.

#### Hit Structure

CAS Registry Number  
52156-95-3 CAPLUS

Chemical or Trade Name  
Ethanone, 1-(3,8-dihydroxy-6,6-dimethyl-6H-dibenzo[b,d]pyran-2-yl)- (CA INDEX NAME)



. L8 ANSWER 131 OF 165 CAPLUS COPYRIGHT 2011 ACS ON STN

Accession Number  
1975:458601 CAPLUS ~~E4:301~~  
Document Number  
83:58601

Title  
6H-dibenzo[b,d]pyrans. I. Synthesis

Author/Inventor  
Devlin, John P.

Patent Assignee/Corporate Source  
Pharma Res. Canada Ltd., Pointe Claire, QC, Can.

Source  
Canadian Journal of Chemistry (1975), 53(3), 343-9 CODEN: CJCHAG; ISSN: 0008-4042

Document Type  
Journal

Language  
English

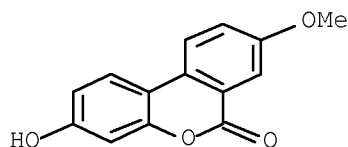
#### Abstract

2',4'-Dihydroxy- and 2',6'-dihydroxybiphenyl-2-carboxylic acid lactones, e.g. I(x = o), were prepared from o-BrC<sub>6</sub>H<sub>4</sub>CO<sub>2</sub>H and dihydroxybenzenes. Grignard addition to or direct BF<sub>3</sub>.Et<sub>2</sub>O-NaBH<sub>4</sub> reduction of these lactones yields resp. 6,6-substituted, e.g. I(x = Me<sub>2</sub>), or the 6,6-unsubstituted, e.g. I(x = H<sub>2</sub>), 6H-dibenzo[b,d]pyrans.

#### Hit Structure

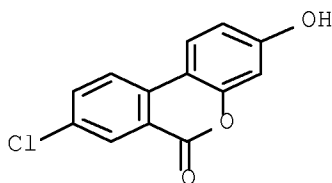
CAS Registry Number  
35233-17-1 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3-hydroxy-8-methoxy- (CA INDEX NAME)



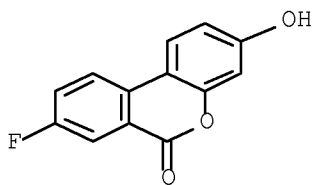
CAS Registry Number  
56263-97-9 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 8-chloro-3-hydroxy- (CA INDEX NAME)



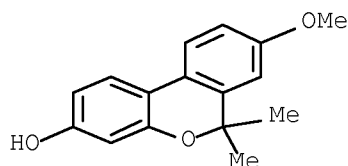
CAS Registry Number  
56263-99-1 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 8-fluoro-3-hydroxy- (CA INDEX NAME)



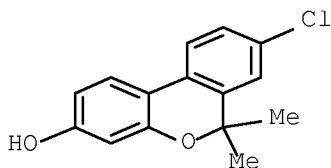
CAS Registry Number  
55815-65-1 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-3-ol, 8-methoxy-6,6-dimethyl- (CA INDEX NAME)



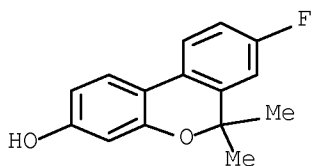
CAS Registry Number  
55815-66-2 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-3-ol, 8-chloro-6,6-dimethyl- (CA INDEX NAME)



CAS Registry Number  
55815-68-4 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-3-ol, 8-fluoro-6,6-dimethyl- (CA INDEX NAME)



OS.CITING REF COUNT: 12 THERE ARE 12 CAPLUS RECORDS THAT CITE THIS RECORD (12 CITINGS)

.L8 ANSWER 132 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN  
Accession Number

1975:408898 CAPLUS [Full-text](#)

Document Number  
83:8898

Title  
6H-dibenzo[b,d]pyrans. II. Boron trifluoride catalyzed acylation of hydroxy-6H-dibenzo[b,d]pyrans

Author/Inventor  
Devlin, John P.

Patent Assignee/Corporate Source  
Pharma Res. Canada Ltd., Pointe Claire, QC, Can.

Source  
Canadian Journal of Chemistry (1975), 53(3), 350-4 CODEN: CJCHAG; ISSN: 0008-4042

Document Type  
Journal

Language  
English

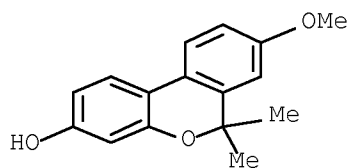
Abstract  
The Friedel-Crafts acetylation of 3-hydroxy-6H-dibenzo[b,d]pyrans (I, R, R1, R2, R3 given: H, H, H, H; H, H, H, OMe; Me, H, H, H; Me, OMe, H, H; Me, Cl, H, H; Me, H, H, Cl; Me, F, H, H) with AcOH in the presence of BF3 is described. Representatives unsubstituted at C-1 acylate exclusively at C-2. A methyl or methoxy substituent at C-1 directs acylation to the C-4 position. The identities of the individual isomers are established on the basis of NMR.

Hit Structure

CAS Registry Number

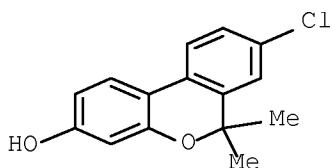
55815-65-1 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-3-ol, 8-methoxy-6,6-dimethyl- (CA INDEX NAME)



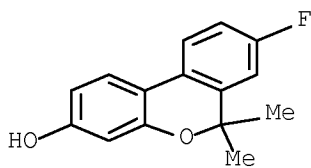
CAS Registry Number  
55815-66-2 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-3-ol, 8-chloro-6,6-dimethyl- (CA INDEX NAME)



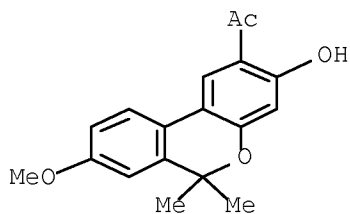
CAS Registry Number  
55815-68-4 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-3-ol, 8-fluoro-6,6-dimethyl- (CA INDEX NAME)



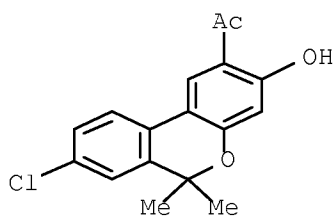
CAS Registry Number  
52156-88-4 CAPLUS

Chemical or Trade Name  
Ethanone, 1-(3-hydroxy-8-methoxy-6,6-dimethyl-6H-dibenzo[b,d]pyran-2-yl)-  
(CA INDEX NAME)



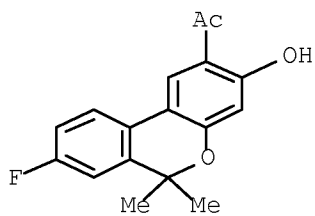
CAS Registry Number  
52156-89-5 CAPLUS

Chemical or Trade Name  
Ethanone, 1-(8-chloro-3-hydroxy-6,6-dimethyl-6H-dibenzo[b,d]pyran-2-yl)-  
(CA INDEX NAME)



CAS Registry Number  
52156-93-1 CAPLUS

Chemical or Trade Name  
Ethanone, 1-(8-fluoro-3-hydroxy-6,6-dimethyl-6H-dibenzo[b,d]pyran-2-yl)-  
(CA INDEX NAME)



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD  
(1 CITINGS)

L8 ANSWER 133 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number  
1975:4064 CAPLUS [Full-text](#)

Document Number  
82:4064

Title  
Virucidal 2,7-bis(aminoalkoxy)-9-hydroxyphenanthrenes and analogous heterocyclic compounds

Author/Inventor  
Meyer, Donald Ralph; Sill, Arthur D.; Tiernan, Paul L.

Patent Assignee/Corporate Source  
Richardson-Merrell Inc.

Source  
Ger. Offen., 50 pp. CODEN: GWXXBX

Document Type  
Patent

Language  
German

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2362577	A1	19740627	DE 1973-2362577	19731217
ZA 7308207	A	19750226	ZA 1973-8207	19731023
AU 7361883	A	19750501	AU 1973-61883	19731026
CA 1042439	A1	19781114	CA 1973-184541	19731029
GB 1420377	A	19760107	GB 1973-58266	19731217
FR 2211242	A1	19740719	FR 1973-45518	19731219
JP 49088852	A	19740824	JP 1973-141923	19731220
US 4059702	A	19761122	US 1976-740806	19761111
JP 55089262	A	19800705	JP 1978-156767	19781219
JP 58014432	B	19830318		

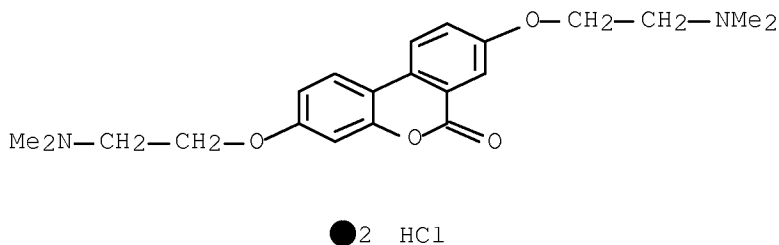
#### Abstract

Five ethers (I, n = 2 or 3; R = Me or Et; or NR2 = piperidino; R1 = Me or H; II, X = NH or O) or their salts were prepared by ring enlargement of the fluorenones (III). I had virucidal activity when tested in the infected mouse. Thus, III (n = 2, R = Et) (IV) was treated with CH2N2 in Et2O and MeOH to give I (n = 2, R = Et, R1 = Me). III (n = 2, R = Me) was treated with ONNMeCO2Et in MeOH and Et2O in the presence of Na2CO3 to give I (n = 2, R = Me, R1 = H). Reaction of IV with NaN3 in F3CCO2H and H2SO4 gave, after treatment with HCl, II.2HCl (X = NH, R = Et). 2,7-bis(2-chloroethyl)fluoren-9-one was treated with 30% H2O2 in concentrated H2SO4 and then successively with Me2NH and HCl to give II.2HCl (X = O, R = Me).

#### Hit Structure

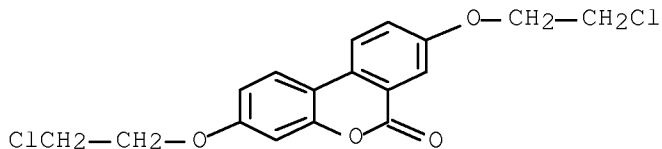
CAS Registry Number  
53395-17-8 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3,8-bis[2-(dimethylamino)ethoxy]-,  
hydrochloride (1:2) (CA INDEX NAME)



CAS Registry Number  
53395-18-9 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3,8-bis(2-chloroethoxy)- (CA INDEX NAME)



OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD  
(2 CITINGS)

L8 ANSWER 134 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number  
1974:535887 CAPLUS [Full-text](#)

Document Number  
81:135887

Title  
Oxidation of Δ1- and Δ6-tetrahydrocannabinol with selenium dioxide

Author/Inventor  
Inayama, Seiichi; Sawa, Aiko; Hosoya, Eikichi

Patent Assignee/Corporate Source  
Sch. Med., Keio Univ., Tokyo, Japan

Source  
Chemical & Pharmaceutical Bulletin (1974), 22(7), 1519-25 CODEN: CPBTAL; ISSN: 0009-2363

Document Type  
Journal

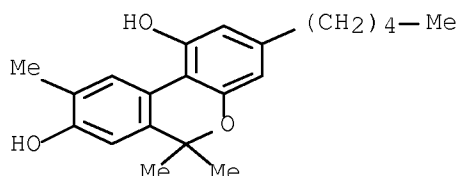
Language  
English

Abstract  
 $\Delta^1$ -Tetrahydrocannabinol I (R = H, R1 = Me) was oxidized with SeO<sub>2</sub> to yield I (R = H, R1 = HOCH<sub>2</sub>), II, III, IV, cannabinol, V (R = H, R1 = HOCH<sub>2</sub>, CHO; R = HO, R1 = Me). VI was transformed to I (R = H, R1 = HOCH<sub>2</sub>, CHO) in a similar manner. The oxidation of I (R = H, R1 = Me) favors the endocyclic allyl methylene rather than the exocyclic allyl Me while the reverse is the case with VI.

Hit Structure

CAS Registry Number  
53865-22-8 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-1,8-diol, 6,6,9-trimethyl-3-pentyl- (CA INDEX NAME)



OS.CITING REF COUNT: 8 THERE ARE 8 CAPLUS RECORDS THAT CITE THIS RECORD  
(8 CITINGS)

\_L8 ANSWER 135 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number  
1974:505322 CAPLUS [Full-text](#)

Document Number  
81:105322

Title  
Virucidal bis(aminopropyl) 5,6-dihydro-6-oxo-3,8-phenanthridinedicarboxylate and analogs

Author/Inventor  
Meyer, Donald Ralph; Sill, Arthur D.

Patent Assignee/Corporate Source  
Richardson-Merrell Inc.

Source  
Ger. Offen., 46 pp. CODEN: GWXXBX

Document Type  
Patent

Language  
German

Patent Information

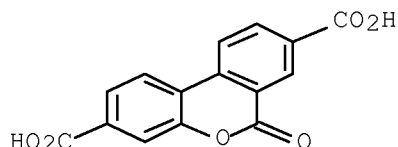
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2362748	A1	19740627	DE 1973-2362748	19731217
US 3859312	A	19750107	US 1972-317146	19721221
CA 1042443	A1	19781114	CA 1973-184536	19731029
IL 43669	A	19780831	IL 1973-43669	19731121
GB 1421075	A	19760114	GB 1973-58261	19731217
FR 2211237	A1	19740719	FR 1973-45513	19731219
JP 49088848	A	19740824	JP 1973-141916	19731220

Abstract  
Four esters (I, X = NH or O; R = Et or Bu; and II, R1 = Me or H) were prepared by ring enlargement of fluorenes. I had virucidal activity when tested in the infected mouse. Thus, the fluorene III (n = 3, R = Bu) was treated with NaN<sub>3</sub> in H<sub>2</sub>SO<sub>4</sub> and F<sub>3</sub>CCO<sub>2</sub>H or with CH<sub>2</sub>N<sub>2</sub> in Et<sub>2</sub>O to give, after treatment with HCl, I (X = NH, R = Bu) or II (R1 = Me), resp. 9-Oxo-2,7-fluorenedicarboxylic acid was treated with H<sub>2</sub>O<sub>2</sub> in H<sub>2</sub>SO<sub>4</sub> to give 6-oxo-6H-dibenzo[b,d]pyran-3,8-dicarboxylic acid, which reacted with Cl(CH<sub>2</sub>)<sub>3</sub>NEt<sub>2</sub> in Me<sub>2</sub>CHOH in the presence of PhCH<sub>2</sub>N<sup>+</sup>Me<sub>3</sub> Cl<sup>-</sup> to give I (X = O, R = Et). The preparation of 13 III (n = 2-5; R = C1-6 alkyl or allyl; or NR<sub>2</sub> = morpholino, piperidino, or cyclohexylmethylamino) by reaction of 9-oxo-2,7-fluorenedicarbonyl dichloride with HO(CH<sub>2</sub>)<sub>n</sub>NR<sub>2</sub> was also reported.

Hit Structure

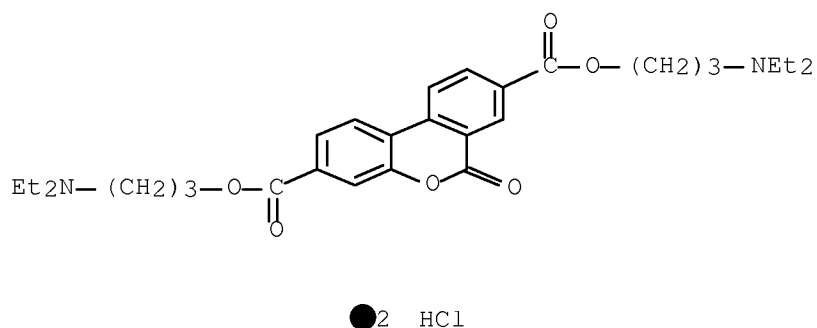
CAS Registry Number  
53405-25-7 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-3,8-dicarboxylic acid, 6-oxo- (CA INDEX NAME)



CAS Registry Number  
53405-26-8 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-3,8-dicarboxylic acid, 6-oxo-, 3,8-bis[3-(diethylamino)propyl] ester, hydrochloride (1:2) (CA INDEX NAME)



L8 ANSWER 136 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number

1974:146136 CAPLUS [Full text](#)

Document Number

80:146136

Title

Antiallergic 2-carboxy-4H,10H-[2]benzopyrano[4,3-g][1]benzopyran-4-ones

Author/Inventor

Devlin, John; Stewart, Patrick Brian; Freter, Kurt

Patent Assignee/Corporate Source

Boehringer, C. H., Sohn

Source

Ger. Offen., 22 pp. CODEN: GWXXBX

Document Type

Patent

Language

German

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2343291	A1	19740314	DE 1973-2343291	19730828
DE 2343291	C3	19790412		
AT 320645	B	19750225	AT 1972-7425	19720829
RO 62920	A1	19780315	RO 1973-75862	19730821
RO 63037	A1	19780515	RO 1973-78264	19730821
CH 581139	A5	19761029	CH 1976-7962	19730824
CH 581657	A5	19761115	CH 1973-12213	19730824
HU 166366	B	19750328	HU 1973-BO1459	19730827
ZA 7305838	A	19750430	ZA 1973-5838	19730827
SU 482042	A3	19750825	SU 1973-1962550	19730827
SU 485596	A3	19750925	SU 1973-1962548	19730827
CS 179427	B2	19771031	CS 1973-5972	19730827
BE 804123	A1	19740228	BE 1973-135029	19730828
NL 7311799	A	19740304	NL 1973-11799	19730828
JP 49056999	A	19740603	JP 1973-96558	19730828
DK 131569	B	19750804	DK 1973-4718	19730828
US 3901925	A	19750826	US 1973-392182	19730828
PL 85433	B1	19760430	PL 1973-164886	19730828
GB 1439990	A	19760616	GB 1973-40417	19730828
CA 1016951	A1	19770906	CA 1973-179828	19730828
SE 396389	B	19770919	SE 1973-11690	19730828
NO 138567	B	19780619	NO 1973-3383	19730828
NO 138567	C	19780927		
FR 2197594	A1	19740329	FR 1973-31242	19730829
DD 109870	A5	19741120	DD 1973-173155	19730829
US 3998962	A	19761221	US 1975-587331	19750616

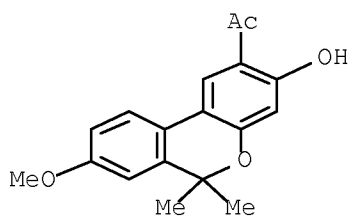
Abstract

Fourteen benzopyranbenzopyranones I (R = H or Me; R1 = H, Cl, OMe, or Br; R2 = H, OMe, Cl, F, OH, OAc, NO2, or SO3H; R3 = H, Me, or Bu) were prepared by cyclization of the dibenzopyran II with (CO2Et)2 or of the fumaric acid ether III in the presence of concentrated H2SO4 optionally followed by e.g. acetylation or nitration. I were used as antiallergic agents in rats.

Hit Structure

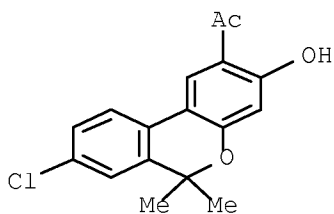
CAS Registry Number  
52156-88-4 CAPLUS

Chemical or Trade Name  
Ethanone, 1-(3-hydroxy-8-methoxy-6,6-dimethyl-6H-dibenzo[b,d]pyran-2-yl)-  
(CA INDEX NAME)



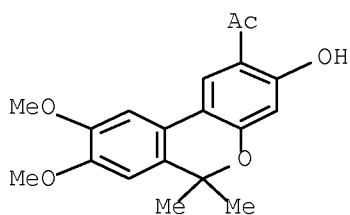
CAS Registry Number  
52156-89-5    CAPLUS

Chemical or Trade Name  
Ethanone, 1-(8-chloro-3-hydroxy-6,6-dimethyl-6H-dibenzo[b,d]pyran-2-yl)-  
(CA INDEX NAME)



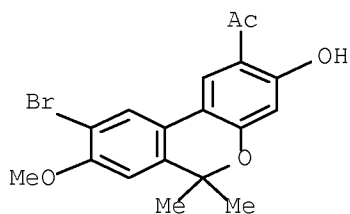
CAS Registry Number  
52156-91-9    CAPLUS

Chemical or Trade Name  
Ethanone, 1-(3-hydroxy-8,9-dimethoxy-6,6-dimethyl-6H-dibenzo[b,d]pyran-2-yl)-  
(CA INDEX NAME)



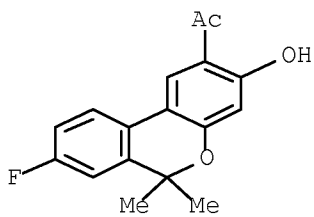
CAS Registry Number  
52156-92-0    CAPLUS

Chemical or Trade Name  
Ethanone, 1-(9-bromo-3-hydroxy-8-methoxy-6,6-dimethyl-6H-dibenzo[b,d]pyran-2-yl)-  
(CA INDEX NAME)



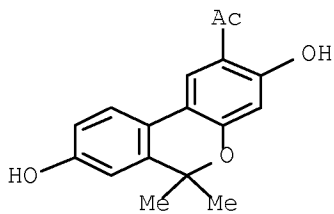
CAS Registry Number  
52156-93-1    CAPLUS

Chemical or Trade Name  
Ethanone, 1-(8-fluoro-3-hydroxy-6,6-dimethyl-6H-dibenzo[b,d]pyran-2-yl)-  
(CA INDEX NAME)



CAS Registry Number  
52156-95-3 CAPLUS

Chemical or Trade Name  
Ethanone, 1-(3,8-dihydroxy-6,6-dimethyl-6H-dibenzo[b,d]pyran-2-yl)- (CA  
INDEX NAME)



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD  
(1 CITINGS)

.L8 ANSWER 137 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number  
1974:133251 CAPLUS [Full-text](#)  
Document Number  
80:133251

Title  
Dibenzo[b,d]pyran compounds

Author/Inventor  
Loev, Bernard  
Patent Assignee/Corporate Source  
Smithkline Corp.

Source  
U.S., 4 pp. CODEN: USXXAM

Document Type  
Patent

Language  
English

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3799946	A	19740326	US 1972-234380	19720313

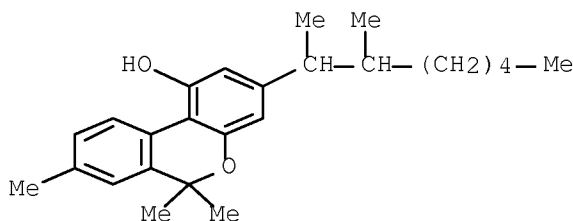
#### Abstract

The dibenzopyrans I (R = Me(CH<sub>2</sub>)<sub>5</sub>CHMeCHMe, Me(CH<sub>2</sub>)<sub>3</sub>CHMeCHMe, Me(CH<sub>2</sub>)<sub>4</sub>CHMeCHMe, Me(CH<sub>2</sub>)<sub>5</sub>CHEt; r<sub>1</sub> = Me, Et; R<sub>2</sub> = H, Me; R<sub>3</sub> = H, Ac, Me) were prepared. Thus, 3-(1,2-dimethylheptyl)-7,8,9,10-tetrahydro-1-hydroxy-6,6,9-trimethyl-6H-dibenzo[b,d]pyran was treated with 2,3-dichloro-5,6-dicyanoquinone to give I (R = Me(CH<sub>2</sub>)<sub>4</sub>CHMeCHMe, R<sub>1</sub> = R<sub>2</sub> = Me, R<sub>3</sub> = H). At 1-100 mg/kg I decreased central nervous system activity in rats. At 0.4-50 mg/kg I inhibited gastric acid secretion in rats.

#### Hit Structure

CAS Registry Number  
52291-11-9 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-1-ol, 3-(1,2-dimethylheptyl)-6,6,8-trimethyl- (CA INDEX NAME)



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD  
(1 CITINGS)

.L8 ANSWER 138 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number  
1973:526235 CAPLUS [Full-text](#)  
Document Number  
79:126235

Title  
New antioxidants and their properties

Author/Inventor  
Untze, W.  
Patent Assignee/Corporate Source  
Landesanst. Lebensm.-, Arzneimittel. Chem., Berlin, Fed. Rep. Ger.

Source  
Fette, Seifen, Anstrichmittel (1973), 75(6), 393-4 CODEN: FSASAX; ISSN: 0015-038X

Document Type  
Journal

Language  
German

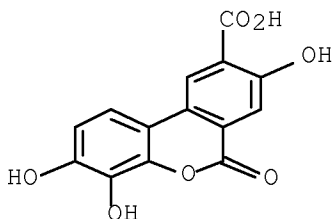
#### Abstract

Reaction of Et 2-oxocyclohexanecarboxylate, Et 2-oxocyclopentanecarboxylate, or di-Et 1,4-dioxo-2,5-cyclohexanedi-carboxylate with polyhydric phenols gave the xanthone, chromone, and coumarin derivs. I-VI, which were used as antioxidants for fatty acids and their Me esters. The fat-solubility and a certain water-solubility of I-VI were achieved by introduction of a CO<sub>2</sub>H group. The o-dihydroxy derivs. showed inhibitor action for long periods at low temps., whereas the p-dihydroxy derivs. had a maximum inhibition towards atmospheric O only at high temps.

#### Hit Structure

CAS Registry Number  
50624-15-2 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-9-carboxylic acid, 3,4,8-trihydroxy-6-oxo- (CA INDEX NAME)



.L8 ANSWER 139 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number  
1973:17594 CAPLUS [Full-text](#)

Document Number  
78:17594

Title  
Development in the chemistry and dyeing uses of methine dyes

Author/Inventor  
Sureau, R.

Patent Assignee/Corporate Source  
Lab. Rech., Prod. Chim. Ugine Kuhlmann, Saint-Denis, Fr.

Source  
Teintex (1972), 37(8-9), 459-64 CODEN: TEINAC; ISSN: 0040-2192

Document Type  
Journal

Language  
French

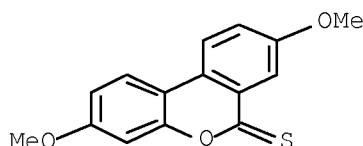
#### Abstract

A methine dye (I, R = R<sub>1</sub> = H) [24000-87-1] giving lightfast (6-7) bright orange dyeings on Crylor or Courtelle fiber was prepared by reaction of coumarin-2-thione with 1,3,3-trimethyl-2-methyleneindoline (II) in HOAc containing ClCH<sub>2</sub>CO<sub>2</sub>Et, and the effects of structural changes on its  $\lambda_{\text{max}}$  and its lightfastness on acrylic fiber were determined. Substitution in the benzopyran and (or) indole nucleus caused a bathochromic shift. The lightfastness of I with electron-donating groups (OMe, Me) was generally good, with amino groups poor, and with electron-withdrawing groups (NO<sub>2</sub>, Cl, Ph) decreased as the electronegativity of the group increased. A bathochromic effect was also observed when the benzopyran nucleus contained a fused benzene ring, and lightfastness decreased in the order: 3,4- > 5,6- > 7,8-benzo. The lightfastness of I also decreased when the bridging groups was changed to trimethylene. Isomers of I prepared from isocoumarin-1-thione or chromone-4-thione had poor to medium lightfastness. Condensation of 2H-naphtho[1,8-bc]furan-2-thione (naphtholactonethione, III) with II and its derivs. gave naphthofuran analogs exhibiting hypsochromism with respect to I, good lightfastness on Crylor, and medium lightfastness on Courtelle. Replacement of the indole nucleus of I by benzothiazole caused a hypsochromic shift and a general decrease in lightfastness; the dyes showed strong fluorescence in uv light. Finally, condensation of III with 3-methyl-2-methylenebenzothiazoline gave I analogs showing a hypsochromic shift and only moderate lightfastness.

#### Hit Structure

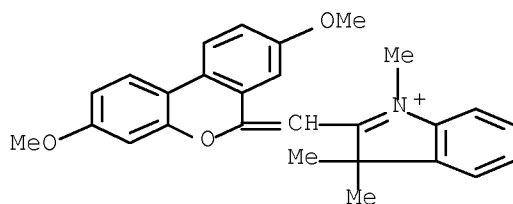
CAS Registry Number  
32004-02-7 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-thione, 3,8-dimethoxy- (CA INDEX NAME)



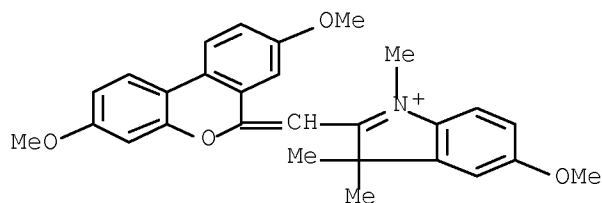
CAS Registry Number  
40383-78-6 CAPLUS

Chemical or Trade Name  
3H-Indolium, 2-[[[3,8-dimethoxy-6H-dibenzo[b,d]pyran-6-ylidene)methyl]-1,3,3-trimethyl-, chloride (1:1) (CA INDEX NAME)



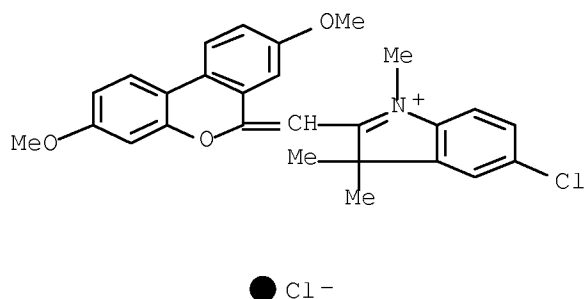
CAS Registry Number  
40383-79-7 CAPLUS

Chemical or Trade Name  
3H-Indolium, 2-[[[3,8-dimethoxy-6H-dibenzo[b,d]pyran-6-ylidene)methyl]-5-methoxy-1,3,3-trimethyl-, chloride (1:1) (CA INDEX NAME)



CAS Registry Number  
40383-81-1 CAPLUS

Chemical or Trade Name  
3H-Indolium, 5-chloro-2-[(3,8-dimethoxy-6H-dibenzo[b,d]pyran-6-ylidene)methyl]-1,3,3-trimethyl-, chloride (1:1) (CA INDEX NAME)



.L8 ANSWER 140 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number

1972:73716 CAPLUS [Full Text](#)

Document Number

76:73716

Title

Fluorescent whitening agents for synthetic fibers. 18. Annellation effects in the fluorescence of some coumarins

Author/Inventor

Umemoto, Hirotoshi; Morii, Akiji; Kitao, Teijiro; Konishi, Kenzo

Patent Assignee/Corporate Source

Dep. Appl. Chem., Univ. Osaka Prefect., Sakai, Japan

Source

Kogyo Kagaku Zasshi (1971), 74(10), 2123-6 CODEN: KGKZA7; ISSN: 0368-5462

Document Type

Journal

Language

Japanese

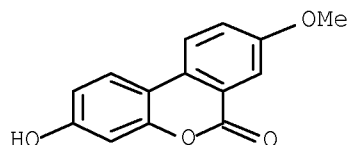
Abstract

The annellation effects on coumarins were studied by measuring the fluorescence intensity of alc. benzocoumarin solns. and characteristic fading curves on polyamide films. The fluorescence intensity was in the order, coumarin (I) [91-64-5] < 6,7-benzocoumarin (II) [3023-98-1] < 3,4-benzocoumarin (III, R = R1 = H)(IV) [2005-10-9] < 7,8-benzocoumarin (V) [2147-34-4] < 5,6-benzocoumarin (VI) [4352-89-0], and light resistance was in the order, IV >> I > II > VI VI > V. The study with III (R = H or OMe, R1 = H, OH, AcO, MeO, NH2, AcNH, or PhNHCONH) showed that III having electron-donating substituents had higher fluorescence intensity.

Hit Structure

CAS Registry Number  
35233-17-1 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3-hydroxy-8-methoxy- (CA INDEX NAME)



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD  
(1 CITINGS)

L8 ANSWER 141 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number  
1971:113246 CAPLUS [Full-text](#)

Document Number  
74:113246

Title  
Methine dyes, especially for coloring acrylic fibers

Author/Inventor  
Sureau, Robert; Kremer, Gilbert; Dupre, Victor

Patent Assignee/Corporate Source  
Ugine Kuhlmann

Source  
Fr. Addn., 7 pp. Addn. to Fr. 1,540,458 CODEN: FAXXA3

Document Type  
Patent

Language  
French

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 95364		19700911	FR	19680711

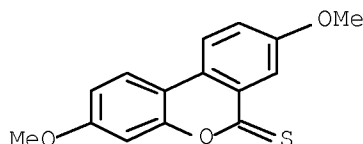
Abstract

2-Ethoxybenzopyrylium fluoroborate suspended in dioxane was treated at 80° with 1,3,3-trimethyl-2-methyleneindoline to give red-orange I. A mixture of 6,8-dimethylcoumarin and P2S5 in anhydrous dioxane was heated for 2 hr at 75-80° and for 5 hr at 100°, decanted hot, and poured into ice-H2O to give II (R = H, R1 = 6,8-Me2). Similarly 9 other II were prepared

Hit Structure

CAS Registry Number  
32004-02-7 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-thione, 3,8-dimethoxy- (CA INDEX NAME)



L8 ANSWER 142 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number  
1968:113863 CAPLUS [Full-text](#)

Document Number  
68:113863

Title  
Electron impact-induced alkyl and hydrogen migrations in diphenic acid derivatives

Author/Inventor  
Wuensche, Christian; Sachs, A.; Einwiller, Andreas; Mayer, Walter

Patent Assignee/Corporate Source  
Univ. Heidelberg, Heidelberg, Fed. Rep. Ger.

Source  
Tetrahedron (1968), 24(8), 3407-16 CODEN: TETRAB; ISSN: 0040-4020

Document Type  
Journal

Language  
German

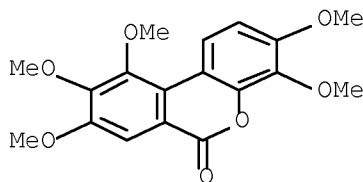
Abstract

The major fragmentation of 6,6'-dialkoxy-2,2'-diphenic acid includes a one-step concerted alkyl and H migration. The C-1-C-1' bond is cleaved and an alkyl group migrates from one benzene ring to the other while a H is transferred in the opposite direction. The type of reaction requires restricted rotation of the benzene rings about the bond joining them, and the lack of loosely bound aromatic substituents the loss of which would allow a planar biphenyl system. 23 references.

Hit Structure

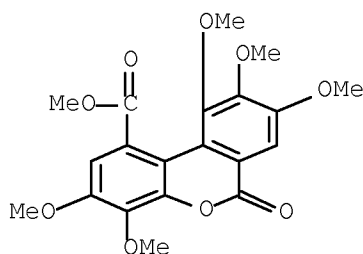
CAS Registry Number  
19491-15-7 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3,4,8,9,10-pentamethoxy- (CA INDEX NAME)



CAS Registry Number  
19491-16-8 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-1-carboxylic acid, 3,4,8,9,10-pentamethoxy-6-oxo-, methyl ester (CA INDEX NAME)



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD  
(1 CITINGS)

.L8 ANSWER 143 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number

1968:104896 CAPLUS [Full-text](#)

Document Number

68:104896

Title

Persulfate oxidation of carboxylic acids. III. Oxidation of cis-cinnamic and biphenyl-2-carboxylic acids

Author/Inventor

Brown, Patricia Margaret; Russell, James; Thomson, Ronald H.; Wylie, A. G.

Patent Assignee/Corporate Source

Univ. Aberdeen, Aberdeen, UK

Source

Journal of the Chemical Society [Section] C: Organic (1968), (7), 842-8 CODEN: JSOOAX; ISSN: 0022-4952

Document Type

Journal

Language

English

Abstract

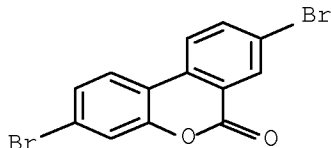
3,4-Benzocoumarins were obtained by oxidative cyclization of biphenyl-2-carboxylic acids. The parent benzocoumarin was also formed by oxidation of 2'-substituted acids with elimination of the substituent (OMe, NO<sub>2</sub>, and CO<sub>2</sub>H and in low yield Me and Cl) but 2'-benzoylbiphenyl-2-carboxylic acid gave 5-benzoyl-3,4-benzocoumarin and 2'-cyanobiphenyl-2-carboxylic acid yielded fluorenone and phenanthridine-1,10-carbolactone. Similar oxidns. of cis-cinnamic acids gave poor yields of coumarins, markedly increased by the presence of an o-methoxy group. The mechanisms of these reactions are discussed. 47 references.

Hit Structure

CAS Registry Number  
18102-99-3 CAPLUS

Chemical or Trade Name

6H-Dibenzo[b,d]pyran-6-one, 3,8-dibromo- (CA INDEX NAME)



OS.CITING REF COUNT: 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD  
(4 CITINGS)

.L8 ANSWER 144 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number

1967:500362 CAPLUS [Full-text](#)

Document Number

67:100362

Title

Luteic acid and islandic acid, composition, and structure

Author/Inventor

Ebert, Edith; Zenk, Meinhard H.

Patent Assignee/Corporate Source

Univ. Munich, Munich, Fed. Rep. Ger.

Source

Phytochemistry (Elsevier) (1967), 6(2), 309-12 CODEN: PYTCAS; ISSN: 0031-9422

Document Type

Journal

Language

English

Abstract

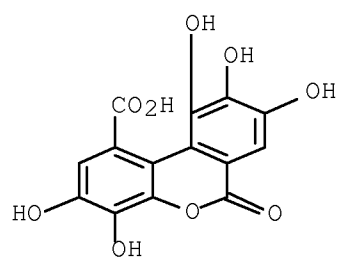
The acidic polysaccharides of *Penicillium luteum* and *P. islandicum* were isolated from the culture medium by precipitation with protamine. The molar ratio of glucose to malonic acid of luteic acid from different *P. luteum* strains varies greatly but is strain specific. Islandic acid from *P. islandicum* consists of glucose and malonic acid in a molar ratio of 1:1, the glucose units being linked through the  $\beta$ -D-1,6-position. Malonic acid is linked in both polysaccharides to the alc. hydroxyl of C-3 of glucose as a hemiester.

Hit Structure

CAS Registry Number  
476-67-5 CAPLUS

Chemical or Trade Name

6H-Dibenzo[b,d]pyran-1-carboxylic acid, 3,4,8,9,10-pentahydroxy-6-oxo-  
(CA INDEX NAME)



L8 ANSWER 145 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number  
1965:4818 CAPLUS [Full-text](#)

Document Number  
62:4818

Title  
Isolation of two benzocoumarins from clover stone, a type of renal calculus found in sheep

Author/Inventor  
Pope, G. S.

Patent Assignee/Corporate Source  
Natl. Inst. Res. Dairying, Reading, UK

Source  
Biochemical Journal (1964), 93(3), 474-7 CODEN: BJOAQ; ISSN: 0264-6021

Document Type  
Journal

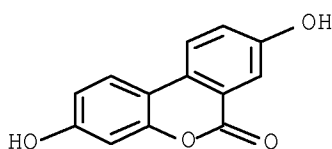
Language  
English

Abstract  
Two known benzocoumarins were isolated from renal calculi, known as clover stone, which are found in sheep in some areas of Western and South Australia. One of these compds. is identical with the natural product castoreum pigment I from the scent gland of the beaver; the other has not previously been found in nature. Both, although not themselves known in the plant kingdom, are closely related to ellagic acid. Although each of the isolated benzocoumarins is a monocarbonyl compound each exhibits a double band in the carbonyl-stretching region of the ir. absorption spectrum.

Hit Structure

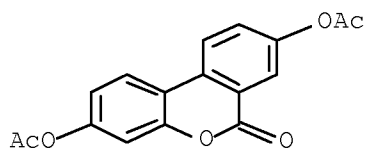
CAS Registry Number  
1143-70-0 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3,8-dihydroxy- (CA INDEX NAME)



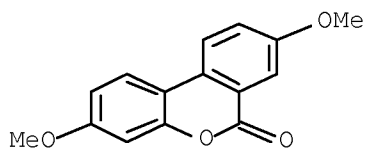
CAS Registry Number  
1163-12-8 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3,8-bis(acetyloxy)- (CA INDEX NAME)



CAS Registry Number  
1680-85-9 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3,8-dimethoxy- (CA INDEX NAME)



OS.CITING REF COUNT: 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD  
(5 CITINGS)

L8 ANSWER 146 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number  
1964:447625 CAPLUS [Full-text](#)

Document Number  
61:47625

Title  
Intramolecular nucleophilic displacement of nitro group in 2'-nitrobiphenyl-2(or 6)-carboxylic acids. Lactonization of 2,3,4,4'-tetramethoxy-2'-nitrobiphenyl-6-carboxylic acid

Author/Inventor  
Mathur, K. B. L.; Sarbhai, K. P.

Patent Assignee/Corporate Source  
Univ. Delhi, India

Source  
Tetrahedron Letters (1964), (25-26), 1743-5 CODEN: TELEAY; ISSN: 0040-4039

Document Type  
Journal

Language  
Unavailable

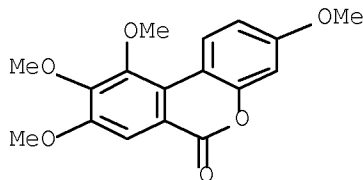
#### Abstract

The title acid (I) (0.2 g.) in 5 ml. quinoline heated 1 hr. with or without 0.08 g. CuO yielded 50% lactone (II), m. 161-2°. II methylated with Me<sub>2</sub>SO<sub>4</sub> in cold aqueous alkali followed by refluxing 1 hr. gave 2,3,4,2',4'-pentamethoxybiphenyl-6-carboxylic acid, m. 176-8°. I, m. 199-200°(alc.), was synthesized by coupling 2,4-O<sub>2</sub>N(MeO)C<sub>6</sub>H<sub>3</sub>N<sub>2</sub>Cl with 3,4,5-(MeO)<sub>3</sub>C<sub>6</sub>H<sub>2</sub>CO<sub>2</sub>Et by the Meerwein diazo reaction according to Dickerman and Weiss (CA 52, 5346g).

#### Hit Structure

CAS Registry Number  
95281-07-5 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3,8,9,10-tetramethoxy- (CA INDEX NAME)



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD  
(1 CITINGS)

. L8 ANSWER 147 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number  
1964:419363 CAPLUS [Full-text](#)

Document Number  
61:19363

Title  
Production of mucilage by mold. IV. Determination of molecular weight

Author/Inventor  
Nakamura, Norio; Tomita, Shigeru; Tanabe, Osamu

Source  
Kenkyu Hokoku - Kogyo Gijutsuin Hakko Kenkyusho ( 1962), No. 22, 69-78 CODEN: KGHKAF; ISSN: 0015-0061

Document Type  
Journal

Language  
Unavailable

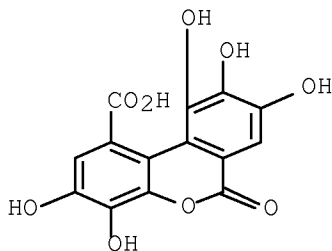
#### Abstract

cf. CA 59, 13124e. A luteic acid produced by *Penicillium aculeatum* was saponified with 0.1N NaOH at room temperature to give a luteose. Sedimentation constant of the luteose was 17.24 + 10<sup>-13</sup> sec., intrinsic viscosity 2.6, and partial sp. volume 0.6572, resp. From these data, the mol. weight of the luteose was calculated as 1.6 + 10<sup>6</sup>. The mol. weight of the luteic acid was estimated to be 2.0 + 10<sup>6</sup> from that of the luteose. The mol. weight of the luteic acid was much greater than that of luteic acid reported by Raistrick and Rintoul (CA 26, 2484).

#### Hit Structure

CAS Registry Number  
476-67-5 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-1-carboxylic acid, 3,4,8,9,10-pentahydroxy-6-oxo-  
(CA INDEX NAME)



. L8 ANSWER 148 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number  
1964:53901 CAPLUS [Full-text](#)

Document Number  
60:53901

Title  
Two constituents of clover stone, a type of urinary calculus found in sheep

Author/Inventor  
Nittle, M. C.; Pope, G. S.

Patent Assignee/Corporate Source  
Natl. Inst. Res. Dairying, Shinfield, UK

Source  
Biochemical Journal (1963), 89(1), 67P CODEN: BIJOAK; ISSN: 0264-6021

Document Type  
Journal

Language  
Unavailable

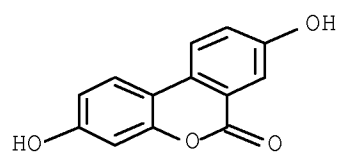
#### Abstract

Urolithin A was obtained as pale, yellow, microscopic needles, m. 330-3°(decompose), C<sub>13</sub>H<sub>8</sub>O<sub>4</sub>. Urolithin B was obtained as white crystals, m. 233-4°; C<sub>13</sub>H<sub>8</sub>O<sub>3</sub>.

#### Hit Structure

CAS Registry Number  
1143-70-0 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3,8-dihydroxy- (CA INDEX NAME)



\_L8 ANSWER 149 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number  
1963:448216 CAPLUS [Full-text](#)  
Document Number  
59:48216

Title  
Experiments related to the biosynthesis of novobiocin and other coumarins

Author/Inventor  
Bunton, C. A.; Kenner, G. W.; Robinson, M. J. T.; Webster, B. R.  
Patent Assignee/Corporate Source  
Univ. Liverpool, UK

Source  
Tetrahedron (1963), 19, 1001-10 CODEN: TETRAB; ISSN: 0040-4020

Document Type  
Journal

Language  
Unavailable

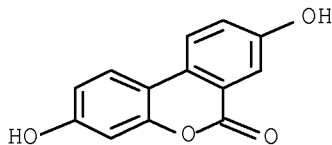
Abstract

cf. CA 55, 1593d. A fermentation broth of *Streptomyces niveus* was treated with L-tyrosine-C14 (I), (1.08 mg., 50  $\mu$ c. generally labeled), and the isolated novobiocin (II) purified by countercurrent distribution between borax buffer (pH 8.6) and ethyl acetate (K approx. 1.0), gave pure II, specific activity 0.92  $\mu$ c./millimole, showing about 10% incorporation. I (1.08 mg.) diluted with inactive L-tyrosine (III to 211 mg. material, activity 46.2  $\mu$ c./millimole, this labeled material (180 mg.) added to a fermentation of *S. niveus*, and the antibiotic isolated gave 434 mg. I, activity 1.90  $\mu$ c./millimole (2.2% incorporation). II (149 mg., 0.92  $\mu$ c./millimole) treated in dry C5H5N with Ac2O gave 39 mg. 4,3-AcO(Me2C:CHCH2)C6H3CO2H, m. 113-14°, sp. activity 0.36  $\mu$ c./millimole (6.3 C°), and 53 mg. 7-[4-(carbamoyloxy)tetrahydro-3-acetoxy-5-methoxy-6,6-dimethylpyran-2-yloxy]-2,6-dimethyl-4H-[1]benzopyrano[3,4-d]oxazol-4-one, m. 169-70°, activity 0.51  $\mu$ c./millimole (8.7 C°), treated with 0.63N HCl in MeOH to give 5 mg. 3-amino-4,7-dihydroxy-8-methylcoumarin, activity 0.52  $\mu$ c./millimole (9.1 C°). The inactivity of the hydrolyzed sugar was confirmed by degradation of labeled II with alc. HCl. Thus, II (870 mg., 0.171  $\mu$ c./millimole, 16 C°) in alc. treated with concentrated HCl yielded 87% cyclonovobiocic acid (IV), sp. activity 0.167  $\mu$ c./millimole (15.6 C°), and 18% Et 3-O-carbamoyl-4-O-methyl-5,5-dimethyl-L-lyxoside, m. 170-4°, activity negligible. IV (450 mg., 0.167  $\mu$ c./millimole) in AcOH treated 48 hrs. with concentrated HCl gave 18% 3,2,4-Me(HO)2C6H2COCH2NH2 HCl, m. 250-60° (decomposition), sp. activity 0.0824  $\mu$ c./millimole (7.9 C°), and 42% 2,2-dimethylchroman-6-carboxylic acid, m. 176-7°, sp. activity 0.0781  $\mu$ c./millimole (7.3 C°). The CO2 liberated from a similar reaction with 498 mg. IV, sp. activity 0.325  $\mu$ c./millimole, was collected as 129 mg. BaCO3, sp. activity 0.0180  $\mu$ c./millimole (0.91 C°). The data showed, without recourse to specific labeling of tyrosine, that it is rationally incorporated into both aromatic sections of II. Using a previously described procedure, I (5.4 g., sp. activity 2.90  $\mu$ c./millimole generally labeled) was equilibrated with H2O18 (20% atom excess) with HBr as catalyst, the doubly-labeled I was divided equally between 6 fermentations (4 l.) of *S. niveus*, the resulting II purified, counted, and degraded to 2,4-Me(HO)C6H3OH (V). II had sp. activity 0.17  $\mu$ c./millimole (4% incorporation) showing an isotopic dilution of 32 fold into the coumarin portion. I and V showed 15.2 and 0.078 atom-% excess of O18, resp. On the hypothesis of oxidative cyclization and allowing for only half the O in V coming from the heterocyclic ring of the coumarin, V should have contained 0.22 atom-% excess of O18, provided there was no exchange of O between the CO2H group and the environment prior to cyclization. The explt. finding of 0.078 atom-% excess clearly signified inclusion of CO2H O in the heterocyclic ring and confirmed that tyrosine is rationally incorporated in the coumarin portion of II. The 2 natural benzocoumarins (VI, VII), isolated by Lederer (CA 44, 2705f) from castoreum (the dried scent gland of the Canadian beaver) may arise by oxidative coupling of 3-HOOC6H4CO2H to 4,4'-dihydroxydiphenic acid (VIII). KOH fusion of fluorenone and crystallization of the product from CCl4 or dilute alc. yielded 77% biphenyl-2-carboxylic acid (IX), m. 112-13°. Phenanthrene (50 g.) and 28 ml. 87% H2O2 warmed in 230 ml. AcOH to commencement of effervescence, the mixture boiled spontaneously 20 min. and reheated to recommencement of spontaneous boiling with 25 ml. 87% H2O2, the mixture kept 16 hrs. at 20°, and the C6H6-washed crystals air-dried gave 55% diphenic acid (X), m. 229-30°. AcOH (300 ml.) containing 50 g. 3-MeOC6H4CO2H treated with 53 g. Br in 150 ml. AcOH and then with 300 ml. H2O, the mixture heated to boiling and cooled yielded 79% 2,5-Br(MeO)C6H3CO2H, m. 158-60°, converted by HCl in MeOH to 2,5-Br(MeO)C6H3CO2Me. The oily ester (60 g.) heated 90 min. with 30 g. Cu bronze at 220-50° and the cooled mass extracted repeatedly with hot C6H6 gave di-Me 4,4'-dimethoxydiphenate, m. 78° (C6H6-petr. ether), converted by alkaline hydrolysis to 31.1 g. VIII, m. 250°. VIII (4 millimoles) and 3.6 g. Pb(OAc)4 refluxed 4 days in dry C6H6 on a steam bath, the mixture heated 4 hrs. with 8 ml. H2O, 2 ml. AcOH, and 4 ml. HOCH2CH2OH, the cooled mixture extracted with Et2O, and the neutral product sublimed at 100°/30 mm. gave 8% VI dimethyl ether, m. 158°. With IX and X similar oxidation with Pb(OAc)4 gave 3,4-benzocoumarin, m. 91-2°, in 12 and 35% yields, resp., with 68 and 44% recovery of the original acids. X (1 g.) in 20 ml. dry CCl4 boiled 48 hrs. with 2.4 g. NaBiO8 and the filtered mixture worked up gave 3% 3,4-benzocoumarin and 20.3% X. No similar reaction occurred with IX. Ag diphenate (21 g.) in 180 ml. warm dry CCl4 stirred 2 hrs. with gradual addition of 2.5 ml. Br in 20 ml. dry CCl4, the mixture refluxed 1 hr., the filtered solution washed with aqueous Na2S2O3, and the colorless solution separated by aqueous NaHCO3 into acidic and neutral fractions yielded 0.05% 3,4-benzocoumarin, 3.8 mg. unidentified lactone, m. 198-9° (MeOH), and 80% X. These and other results were discussed in terms of the general concept of oxidative cyclization.

Hit Structure

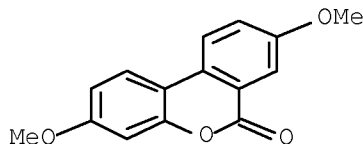
CAS Registry Number  
1143-70-0 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3,8-dihydroxy- (CA INDEX NAME)



CAS Registry Number  
1680-85-9 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3,8-dimethoxy- (CA INDEX NAME)



OS.CITING REF COUNT: 20 THERE ARE 20 CAPLUS RECORDS THAT CITE THIS RECORD (20 CITINGS)

\_L8 ANSWER 150 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number  
1961:8062 CAPLUS [Full-text](#)  
Document Number  
55:8062

Title  
The biosynthesis of certain coumarins, particularly of novobiocin

Author/Inventor  
Chambers, K.; Kenner, G. W.; Temple Robinson, M. J.; Webster, B. R.  
Patent Assignee/Corporate Source  
Univ. Liverpool, UK

Source  
Proceedings of the Chemical Society, London ( 1960) 291-2 CODEN: PCSLAW; ISSN: 0369-8718

Document Type  
Journal

Language  
Unavailable

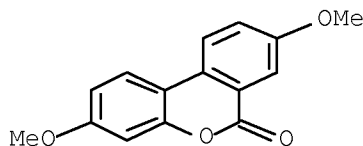
Abstract

Labeled novobiocin (I), produced from L-tyrosine-C14 (II) by fermentation, was degraded to various compds. (Hinman, et al., CA 51, 17903f; Stammer, et al., CA 52, 11031e) and the radioactivity of the degradation products determined. It was shown that the entire carbon skeleton of I was incorporated into the aminocoumarin nucleus of I and that II provided 7 of the C atoms for the aromatic acid moiety but none for the sugar. In the biosynthesis of coumarin from phenylalanine (Weygand and Wendt, CA 54, 6889h), a mechanism was suggested involving an intramol. attack of a carboxyl radical or potential carboxyl cation on an aromatic ring. By this mechanism, the yellow pigments from castoreum (Lederer, CA 44, 729f) could arise from 4,4'-dihydroxydiphenic acid (III). III could result from oxidative coupling of m-hydroxybenzoic acid. The di-Me ether of III was oxidized with 87% H<sub>2</sub>O<sub>2</sub> in AcOH to 4,4'-dimethoxy-2'-hydroxy-2-biphenylcarboxylic acid  $\delta$ -lactone, the di-Me ether of one of the pigments.

#### Hit Structure

CAS Registry Number  
1680-85-9 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3,8-dimethoxy- (CA INDEX NAME)



L8 ANSWER 151 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number  
1959:1892 CAPLUS [Full-text](#)  
Document Number  
53:1892

Title  
Nucleophilic substitution of the halogen in o-bromobenzoic acids

Author/Inventor  
Mayer, Walter; Fikentscher, Rolf  
Patent Assignee/Corporate Source  
Univ. Heidelberg, Germany

Source  
Chemische Berichte (1958), 91, 1536-41 CODEN: CHBEAM; ISSN: 0009-2940

Document Type  
Journal

Language  
Unavailable

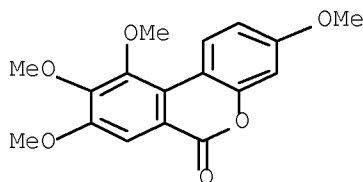
#### Abstract

The Br of 2,3,4,5-Br(MeO)3C6HCO<sub>2</sub>H (I) can be replaced relatively easily in the presence of Cu powder, cuprous, or cupric ions by various nucleophilic substituents. A mechanism postulating the formation of an intermediate Cu chelate is proposed and discussed. I (13 g.) in 60 cc. 3N NaOH heated 7 hrs. with stirring under H with 0.2 g. CuO, acidified, and filtered gave 7 g. 2-OH analog of I. I (3g.), 0.2 g. Cu powder, 2 g. pyrogallol, and 30 cc. 2N NaOH heated 2 hrs. at 100° under H, filtered, and acidified gave 1.6 g. 3,4,5-(MeO)3C6H<sub>2</sub>CO<sub>2</sub>H (II), prisms, m. 166-8°. I (3 g.) and 1.3 g. Cu powder in 40 cc. pyridine heated, evaporated, and acidified gave 1.5 g. II. I (2 g.) and 4 g. CuCN dissolved with 20% aqueous N<sub>2</sub>CN, treated with 0.5 g. Cu powder, heated 9 hrs. with stirring at 100° under H, filtered, cooled, acidified with 6N HCl, extracted with Et<sub>2</sub>O, and the extract worked up gave 1.4 g. 2,3,4,5-NC(MeO)3C6HCO<sub>2</sub>H (III), needles, m. 149-51° (H<sub>2</sub>O). III heated 1 hr. with 2N HCl yielded 3,4,5,1,2-(MeO)3C6H(CO<sub>2</sub>H)2, m. 175°. I (3 g.), 0.2 g. Cu powder, 5.5 g. NaCN, and 30 cc. 0.33N NaOH treated similarly gave only unchanged I. I (5 g.) and 0.2 g. Cu powder refluxed 8 hrs. with 6 g. Na in 100 cc. absolute MeOH, filtered hot, cooled, and the resulting Na salt acidified with 4N HCl yielded 3.2 g. 2,3,4,5-(MeO)4C6HCO<sub>2</sub>H, prisms, m. 87-8° (H<sub>2</sub>O or petr. ether). I (10 g.), 10 g. NaOPh, 2 g. Cu powder, and 30 g. PhOH heated 6 hrs. at 100° with stirring, concentrated in vacuo, acidified with dilute HCl, steam distilled, the distillation residue cooled, and the solid deposit recrystd. with C from aqueous EtOH yielded 3 g. 2,3,4,5-PhO(MeO)3C6HCO<sub>2</sub>H, m. 150-2°, which with CH<sub>2</sub>N<sub>2</sub> gave 100% Me ester, prisms, m. 95-7° (MeOH or petr. ether); the ester saponified gave the acid, m. 150-2°. m-C6H4(OH)2 (10 g.) added to 0.7 g. Na in 50 cc. MeOH, the mixture evaporated in vacuo, the residue treated with 3 g. I and 0.4 g. Cu powder, stirred 4 hrs. at 120° under H, cooled, treated with 200 cc. N HCl, warmed briefly, filtered, and the residue recrystd. from EtOH with C gave 1.2 g. 2',4'-dihydroxy-2,3,4-trimethoxybiphenyl-6-carboxylic acid lactone (IV), pale yellowish needles, m. 256-8°. IV (1 g.) in Me<sub>2</sub>CO treated with excess CH<sub>2</sub>N<sub>2</sub> in Et<sub>2</sub>O, kept 24 hrs. at 0°, and evaporated gave the 4'-Me ether of IV, needles, m. 161°. IV (1 g.) dissolved in 9 cc. warm 4N NaOH, treated with 2.3 g. Me<sub>2</sub>SO<sub>4</sub>, shaken 0.5 hr. at room temperature, refluxed 1 hr., cooled, acidified, and the precipitate reprecipd. from aqueous Na<sub>2</sub>CO<sub>3</sub> gave the 2',4'-di-Me ether of IV, leaflets, m. 176-8° (aqueous EtOH). I (5 g.) added slowly with stirring to 20 cc. concentrated HNO<sub>3</sub> and 70 cc. glacial AcOH, the mixture kept 2 hrs. at 50-60° and 12 hrs. at 30-40°, treated with 500 cc. H<sub>2</sub>O, filtered, and the residue digested with aqueous NaHCO<sub>3</sub> and recrystd. from EtOH yielded 1.5 g. 2,3,4,5-Br(MeO)3C6HNO<sub>2</sub> (V), m. 86-7°. V (1 g.) in 15 cc. 3N NaOH heated 9 hrs. at 100° with stirring gave 0.81 g. unchanged V; the solution treated with AgNO<sub>3</sub> gave 0.050 g. AgBr; a similar run in the presence of Cu powder (0.1 g.) gave 0.75 g. unchanged V.

#### Hit Structure

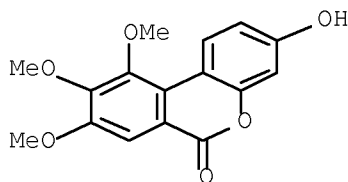
CAS Registry Number  
95281-07-5 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3,8,9,10-tetramethoxy- (CA INDEX NAME)



CAS Registry Number  
107100-41-4 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3-hydroxy-8,9,10-trimethoxy- (CA INDEX NAME)



Accession Number

1958:45735 CAPLUS [Full-text](#)

Document Number

52:45735

Title

Precipitation of neutral polysaccharides by cationic detergents

Author/Inventor

Palmstierna, Hans; Scott, J. E.; Gardell, S.

Patent Assignee/Corporate Source

Karolinska Inst., Stockholm

Source

Acta Chemica Scandinavica (1957), 11, 1792-3 CODEN: ACHSE7; ISSN: 0904-213X

Document Type

Journal

Language

Unavailable

Abstract

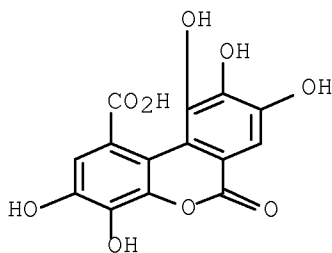
A neutral polysaccharide coupled to borate is completely precipitated when cetylpyridinium chloride (I) is added (C.A. 51, 10099e). Glycogen (II) from Escherichia coli B, alone or in combination with luteic acid (III) is separated by precipitating the III directly with I and the II by making the solution 0.01M with regard to borate, adjusting to pH 9.2 with KOH and adding I to complete precipitation. The II is dissociated from the borate-I complex by lowering the pH to neutrality and dialyzing against tap water. The III is separated from I by dissolving in a solvent consisting of 20 ml. MeOH, 30 ml. saturated NaCl, and 50 ml. H<sub>2</sub>O, treating with Lloyd's reagent, and following the disappearance of I spectrophotometrically.

Hit Structure

CAS Registry Number  
476-67-5 CAPLUS

Chemical or Trade Name

6H-Dibenzo[b,d]pyran-1-carboxylic acid, 3,4,8,9,10-pentahydroxy-6-oxo-  
(CA INDEX NAME)



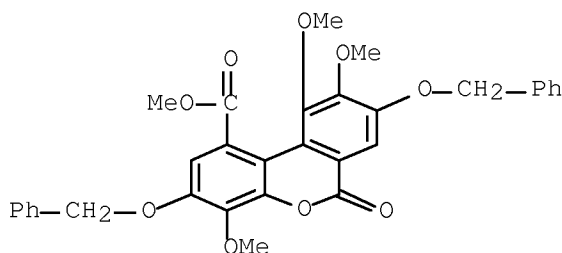
Accession Number 1957:66529 CAPLUS [Full-text](#)  
 Document Number 51:66529  
 Title Natural tannins. XXIV. Synthesis of octamethylvaloneic acid  
 Author/Inventor Schmidt, Otto Th.; Komarek, Ernst; Rentel, Heinz  
 Patent Assignee/Corporate Source Univ. Heidelberg, Germany  
 Source Annalen der Chemie, Justus Liebig's (1957), 602, 50-60 CODEN: 9X224Y  
 Document Type Journal  
 Language Unavailable  
 Abstract

cf. C.A. 50, 2487h. All m.p.s. were taken with the Bock Monoscope apparatus and were corrected. Most compds. were dried over P<sub>2</sub>O<sub>5</sub> at 0.4 mm. and appropriate temps. Chromatograms were made on Schleicher and Schull papers rendered hydrophobic by immersion in 3 or 10% silicone oil (AK 1000, Wacker-Chemie) dissolved in cyclohexane, and dried in air; those areas of the papers that were to be immersed in the solvent trough were left untreated. The chromatographic tanks were kept saturated with CHCl<sub>3</sub> vapor before the CHCl<sub>3</sub>-saturated solvent (consisting of H<sub>2</sub>O containing 2% AcOH and 1% MeOH) was introduced into the trough. Chromatograms were run at 10°, and after drying were developed either by spraying with 2-HO<sub>2</sub>SC<sub>6</sub>H<sub>4</sub>N<sub>2</sub>Cl (when free phenolic OH groups were present) or else treated 3 min. with Br vapor and 20 min. with NH<sub>3</sub> and then viewed under ultraviolet (U.V.) light. Extensive (qual.) solubility data are given. Tetraacetyllagic acid (I) (12 g.) and 20 g. recently ignited K<sub>2</sub>CO<sub>3</sub> in pure BzMe was stirred 6 hrs. at 125-30°, cooled, filtered, washed with a little MeOH, suspended in 400 cc. H<sub>2</sub>O, and acidified with 18% HCl; the precipitate washed with H<sub>2</sub>O, MeOH, and Et<sub>2</sub>O gave 6 g. 4,4'-diacetyllagic acid (II), prisms, not m. at 350°. It gave no color with FeCl<sub>3</sub>, and responded negatively to the Griessmayer-Reichel (G.-R.) reaction for ellagic acid. The 3,3'-di-Me derivative (III) of II, prisms, m. 302-5° (from HCONMe<sub>2</sub> or dioxane). Saponification of 5 g. III by refluxing 2 hrs. with 2N KOH in MeOH (preferably under H) followed by dilution with H<sub>2</sub>O and acidification with 2N H<sub>2</sub>SO<sub>4</sub> gave 3.2 g. 3,3'-dimethylellagic acid (IV), pale yellow, m. 319-20° (from HCONMe<sub>2</sub> or dioxane), giving neither the FeCl<sub>3</sub> nor the G.-R. reaction. In hot dioxane IV gave reddish violet colorations with active PbO. Crude II (12 g.) was freed from part of the ellagic acid (V) by extracting with hot MeOH, methylated with CH<sub>2</sub>N<sub>2</sub>, and saponified first with 2N KOH in MeOH and then with aqueous N KOH, filtered, and the filtrate acidified with 18% HCl giving almost exclusively V, the filtrate from which was heated, giving 3.8 g. IV. To BzMe (400 cc.), 21 g. IV, and 60 g. dry K<sub>2</sub>CO<sub>3</sub> stirred and heated at 140° was added 100 cc. PhCH<sub>2</sub>Cl in 10 portions every 30 min. More rapid addition caused losses in yield. After heating 2 hrs., the cooled product was washed with MeOH and H<sub>2</sub>O giving 27.3 g. 4,4'-dibenzyl derivative (VI) of IV, hexagons, m. 295-6° (when preheated to 280°) (from BzMe or HCONMe<sub>2</sub>). To 5.2 g. VI in 50 cc. boiling 2N KOH in MeOH, H<sub>2</sub>O was added dropwise until the solution was clear, MeOH was removed in vacuo, another 30 cc. H<sub>2</sub>O added, and the filtered mixture at 0° acidified with HCl giving 4.1 g. 2,2'-dihydroxy-3,3'-dimethoxy-4,4'-dibenzyl-6,6'-dicarboxybiphenyl (VII), long needles, readily lactonized and showing no definite m.p. (from Me<sub>2</sub>CO by addition of petr. ether); the 2,2'-di-MeO analog (VIII) of VII, prismatic rods, m. 236° (from MeOH), was formed by treating VI with aqueous 2N NaOH, methylating with Me<sub>2</sub>SO<sub>4</sub>, precipitating with HCl, and saponifying any residual ester with KOH in MeOH. The di-Me ester (IX) of VIII, hexagons, m. 145° (from MeOH, Me<sub>2</sub>CO, or C<sub>6</sub>H<sub>6</sub>petr. ether) was formed by methylating IX in MeOH or VII in Me<sub>2</sub>CO with excess CH<sub>2</sub>N<sub>2</sub> in Et<sub>2</sub>O; under these conditions, in one instance, another crystalline compound (X), a lactone analog of VIII, m. 185°, was formed. VI (37 g.) in 200 cc. MeOH was stirred and refluxed 0.5 hr. with 2N NaOH and treated dropwise with 500 cc. H<sub>2</sub>O. MeOH and 100 cc. H<sub>2</sub>O was distilled and the filtered mixture stirred and treated at 35° with Me<sub>2</sub>SO<sub>4</sub> until a spot test coloration with HO<sub>2</sub>SC<sub>6</sub>H<sub>4</sub>N<sub>2</sub>Cl was neg., then warmed to 60°, treated with 20 cc. 25% NaOH, heated 0.5 hr. at 95°, cooled, acidified with concentrated HCl, and the resulting precipitate remethylated with CH<sub>2</sub>N<sub>2</sub> in Et<sub>2</sub>O giving 39 g. IX. By prehydrogenating 0.3 g. PdCl<sub>2</sub> in absolute MeOH, a catalyst was prepared which was used in the 48 hr. hydrogenation at 40° of 38 g. IX suspended in 200 cc. MeOH giving 25 g. 4,4'-dihydroxy-2,2':3,3'-tetramethoxy-6,6'-carbomethoxybiphenyl (XI), rodlets, m. 135° (from C<sub>6</sub>H<sub>6</sub>-petr. ether); free acid (XIIa), hexagons, m. 283-4° (from aqueous dioxane or tetrahydrofuran-petr. ether and dried at 135°/1 mm. over P<sub>2</sub>O<sub>5</sub> and paraffin). 4,4'-Dihydroxybiphenyl (4.4 g.) in 30 cc. 2N NaOH was stirred with 3.5 cc. Me<sub>2</sub>SO<sub>4</sub>, after 0.5 hr. warmed to 80°, and any di-Me ether precipitate filtered off and washed with NaOH. The filtrate, acidified with 2N HCl, was boiled, filtered hot, and the precipitate washed with hot H<sub>2</sub>O, dried, dissolved in hot 2N NaOH, and cooled to 0° giving an insol. Na compound which was washed (at 0°) with 2N NaOH, suspended in H<sub>2</sub>O, acidified with 2N HCl, heated, filtered, and the precipitate washed with H<sub>2</sub>O to neutrality giving 3.8 g. 4-hydroxy-4'-methoxybiphenyl, leaflets, m. 186° (from Bu<sub>2</sub>O or aqueous dioxane). [4,3,5-(HO)(MeO)C<sub>6</sub>H<sub>2</sub>]<sub>2</sub> (XII) (hydrocouerilignone) (3.8 g.) was partially methylated in 50% dioxane under H using 2N KOH and 4 g. Me<sub>2</sub>SO<sub>4</sub> at 10°. The mixture, acidified to pH 5-6, was poured into 900 cc. H<sub>2</sub>O, cooled to 0°, and the precipitated 4,4'-di-Me derivative of XII filtered off. The filtrate evaporated in vacuo to incipient crystallization was cooled to 0° giving about 1.05 g. 4'-Me derivative of XII, m. 146° (by successive crystallization from MeOH, C<sub>6</sub>H<sub>6</sub>-petr. ether with C, and EtOH, followed by cold-finger sublimation at 135°/0.01 mm.), turning pink on exposure to air. XI (3 g.) in 21 cc. 66% dioxane at 30° methylated with 2N NaOH and Me<sub>2</sub>SO<sub>4</sub>, acidified with 2N H<sub>2</sub>SO<sub>4</sub>, extracted with Et<sub>2</sub>O, the extract washed with aqueous NaHCO<sub>3</sub> and H<sub>2</sub>O, and dried gave a sirup, which in CHCl<sub>3</sub> was chromatographed on alkali-free Woelm Al<sub>2</sub>O<sub>3</sub>. Elutions with CHCl<sub>3</sub> were monitored by use of U.V. light. Three zones were noted, the fastest-moving one (di-Me hexamethoxydiphenate) was eluted completely with CHCl<sub>3</sub>. The column was cut between the remaining 2 zones, and each section was extracted with MeOH. These exts. were examined by paper chromatography; the upper zone yielded XI. The central zone gave largely th 4-Me derivative of XI (frequently contaminated with XI). Further separation, described in detail, permitted the isolation of 1.7 g. 4-Me derivative of XI, rhombs, m. 84° (after seeding the MeOH solution, and subsequent crystallization from C<sub>6</sub>H<sub>6</sub>-petr. ether and 50% MeOH), saponification of which gave 91% 4-Me derivative of XIIa, rhombs, m. 247° (from Me<sub>2</sub>CO and aqueous dioxane). The 4-Me derivative of XI (1 g.) with 3.3 g. 2,3,4,5-Br(MeO)<sub>3</sub>C<sub>6</sub>HCO<sub>2</sub>H (cf. Mayer and Fikentscher, C.A. 50, 14643h) in 10 cc. dry MeOH was treated with 3.1 cc. 4N MeOK, evaporated in vacuo, heated 2 hrs. at about 100°/14 mm., powdered and dried 16 hrs. at 1 mm. over "Blaugel", mixed with 0.75 g. defatted Natur Cu C and 40 mg. Cu(OAc)<sub>2</sub>, dried at 40°/0.4 mm. over P<sub>2</sub>O<sub>5</sub> in a test tube placed in a drying pistol, after which the former was removed, connected with a "Blaugel" tube and heated 2 hrs. at 125-30°, cooled, repowdered rapidly, retreated with 0.1 g. Natur Cu C, and heated 2 hrs. at 170-80°. The product, taken up in the min. amount 2N NaOH, was filtered and the filtrate heated 1 hr. on a steam bath, acidified with 18% HCl, the amorphous precipitate taken up in MeOH, esterified with CH<sub>2</sub>N<sub>2</sub>, evaporated, the sirup in CHCl<sub>3</sub> chromatographed on Woelm Al<sub>2</sub>O<sub>3</sub>, and eluted with CHCl<sub>3</sub> until the fastest moving area, fluorescing brilliantly in U.V. light, was removed. The evaporated eluate, a mixture of Me trimethylgallate, di-Me hexamethoxyphenate, and tri-Me octamethylvaloneate, was fractionated in high vacuum: (MeO)<sub>3</sub>C<sub>6</sub>H<sub>2</sub>CO<sub>2</sub>Me, b<sub>0.01</sub> 95-7°; di-Me hexamethoxyphenate, b<sub>0.01</sub> 200° (bath temperature). The distillation was interrupted after 15 min. at 240°/0.01 mm. and the resulting brown still residue purified by solution in CHCl<sub>3</sub> and chromatographing on Al<sub>2</sub>O<sub>3</sub> (as above), evaporating, and heating in vacuo at 200-250°, and then repeating the chromatographic procedure. The sirup resulting from the final CHCl<sub>3</sub> eluate was saponified with 2N KOH in MeOH, treated slowly with H<sub>2</sub>O, acidified, and the precipitate washed with H<sub>2</sub>O, and dried giving 425 mg. octamethylvaloneic acid, 4',5',6',6'-hexamethoxydiphenic acid 4',4',5',6'-trimethoxy-2-carboxyphenyl ether, m. 250°, identical crystallographically and in its solubility with the compound prepared previously from a natural product, and showing no m.p. depression when mixed with this compound

#### Hit Structure

CAS Registry Number  
 116031-48-2 CAPLUS

Chemical or Trade Name  
 6H-Dibenzo[b,d]pyran-1-carboxylic acid,  
 4,9,10-trimethoxy-6-oxo-3,8-bis(phenylmethoxy)-, methyl ester (CA INDEX  
 NAME)



Accession Number 1957:1797 CAPLUS [Full-text](#)  
 Document Number 51:1797  
 Title The stability of coumarinic acids. Chelation of the hydroxyl group  
 Author/Inventor Crawford, Malcolm; Rasburn, J. W.  
 Patent Assignee/Corporate Source Coll. Technol., Belfast, Ire.  
 Source Journal of the Chemical Society (1956) 2155-60 CODEN: JCSOA9; ISSN: 0368-1769  
 Document Type Journal  
 Language Unavailable  
 Abstract

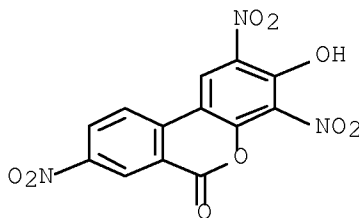
The examination of a number of nitrocumarins has established that free coumarinic acids can be isolated from 8-nitrocumarins, but not from other nitrocumarins. This stability is attributed to chelation of the nitro group with the neighboring OH group. 7-Hydroxy-6,8-dinitrocoumarin (0.5 g.) in 3 ml. 10% NaOH and 10 ml. H<sub>2</sub>O was boiled 5 min., cooled in ice, filtered, and added to an ice-cooled mixture of 8 ml. 2N HCl and 10 ml. of H<sub>2</sub>O. The precipitate was filtered off, washed with ice H<sub>2</sub>O and crystallized from 30% aqueous alc. to yield 2,4-dihydroxy-3,5-dinitroallicinnamic acid, m. 160-1°, as yellow needles. A mixture of 9 g. 5,2,3-Me(HO)(O<sub>2</sub>N)<sub>2</sub>C<sub>6</sub>H<sub>2</sub>CHO, 13.5 g. NaOAc, and 20 ml. Ac<sub>2</sub>O was refluxed 3.5 hrs., and the resulting brown solid extracted with 200 ml. of hot 50% HOAc, treated with C, and cooled to give 6.85 g. 6-methyl-8-nitrocoumarin (I), m. 174° (from HOAc). The filtrate after removal of the crude I above was concentrated to 50 ml., diluted with 400 ml. H<sub>2</sub>O, the precipitate extracted with cold 5% Na<sub>2</sub>CO<sub>3</sub>, the filtrate boiled 15 min., cooled and acidified. The precipitate was extracted with NaHCO<sub>3</sub> solution, reprecip., and recrystd. from 50% alc. to yield 0.75 g. 5-methyl-3-nitrocoumaric acid, m. 234-6° (decomposition), yellow needles. 1 (0.5 g.) was dissolved in hot aqueous NaOH, cooled, filtered, and the

filtrate chilled to 0° and added to chilled HCl to give a precipitate, which was washed with ice H<sub>2</sub>O and recrystd. from aqueous alc. to yield 5-methyl-3-nitrocoumarinic acid, m. 166-7° (sealed tube) (decomposition to a solid, m. 173-4°), s yellow needles. p-Me3CC6H4OH (100 g), 100 g, (CH<sub>2</sub>)<sub>6</sub>N<sub>4</sub>, 600 g, glycerol, and 140 g, H<sub>3</sub>BO<sub>3</sub> were treated in a Duff reaction to give 32 g, yellow oil, which yielded 21.4 g, 5,2-Me3C(HO)C<sub>6</sub>H<sub>3</sub>CHO (II), b<sub>1.0</sub> 80-6° (phenylhydrazine, m. 184°), and 7 g, of oil, b<sub>1.0</sub> 86-98°, which partly solidified on cooling and yielded 1.5 g, of 2,3,5-HO(Me3C)2C<sub>6</sub>H<sub>2</sub>CHO, m. 61.5-3° (from alc.) [phenylhydrazine, m. 1.405-1.5° (plates from aqueous alc.)]. II (5.35 g.) nitrated in 1.3 ml. fuming HNO<sub>3</sub> and 47 ml. HOAc at room temperature gave 4 g, 5,2,3-Me3C(HO)(O<sub>2</sub>N)C<sub>6</sub>H<sub>2</sub>CHO (III), m. 91-2° (pale lemon-yellow plates from alc.). III (4.46 g.) was subjected to a Perkin reaction, the product was boiled with 100 ml. HOAc, filtered, the filtrate boiled with C, filtered hot, and diluted with 500 ml. H<sub>2</sub>O to give a precipitate, which was extracted with cold 5% aqueous NaHCO<sub>3</sub> solution. The residue after two recrystns. from 80% HOAc gave 1.93 g, 6-tert-butyl-8-nitrocoumarin (IV), m. 175-6°, as colorless plates. Acidification of the above NaHCO<sub>3</sub> extract gave 0.33 g, 5-tert-butyl-3-nitrocoumarinic acid, m. 222-3° (decomposition) (yellow plates from aqueous alc.). A filtered and chilled solution of IV (0.5 g.) in dilute aqueous NaOH was added to dilute HCl to yield 5-tert-butyl-3-nitrocoumarinic acid, m. 133-4° (decomposition), second m.p. 174-5° (yellow needles from aqueous alc.). Nitration of 5.85 g, of 5,2-Ph(HO)C<sub>6</sub>H<sub>3</sub>CHO in HOAc at 20-30° gave 6.7 g, 3-O<sub>2</sub>N derivative (V), m. 115-16° (orange-yellow needles from alc.). Treatment of 6.07 g, V in a Perkin reaction 8 hrs. gave 4.07 g, 8-nitro-6-phenylcoumarin (VI), m. 178-8.5° (pale yellow needles from aqueous HOAc). Acidification of the NaHCO<sub>3</sub> extract from the preparation of VI gave 0.27 g, of 3-nitro-5-phenylcoumarinic acid, m. 225-6° (yellow needles from alc.). VI (0.5 g.) was converted into 3-nitro-5-phenylcoumarinic acid, m. 180-1° (decomposition) (orange-yellow needles from alc.). 5,2,3-C(HO)(O<sub>2</sub>N)C<sub>6</sub>H<sub>2</sub>CHO, m. 108-9°, yielded via a Perkin reaction 6.65 g, 6-chloro-8-nitrocoumarin (VII), m. 153-4° (colorless needles from 80% HOAc), and 0.31 g, 5-chloro-3-nitrocoumarinic acid, m. 221-2° (decomposition) (yellow needles from aqueous alc.). VII gave 5-chloro-3-nitrocoumarinic acid, m. 146-7° (decomposition), second m. p. 151-2° (yellow plates from aqueous alc.). A Perkin reaction carried out on 5,2-Br(HO)C<sub>6</sub>H<sub>3</sub>CHO (12.3 g.) yielded 8.8 g, 6-bromo-8-nitrocoumarin (VIII), m. 180-80.5° (pale yellow needles from aqueous HOAc), and 0.23 g, 5-bromo-3-nitrocoumarinic acid, m. 237-8° (decomposition) (yellow needles from aqueous alc.). VIII in the usual manner gave 5-bromo-3-nitrocoumarinic acid, m. 148-9° (decomposition), second m.p. 178-80° (golden-yellow platelets from aqueous alc.). 2,5-HO(MeO)C<sub>6</sub>H<sub>3</sub>CHO (2 g.) yielded 1.35 g, 6-methoxy-8-nitrocoumarin (IX), m. 219-19.5° (pale yellow needles from HOAc), and 5-methoxy-3-nitrocoumarinic acid, m. 226-7° (decomposition) (two forms: orange needles and red prisms from alc.). IX gave 5-methoxy-3-nitrocoumarinic acid, m. 167° (sealed tube) (decomposition), second m.p. 215-17°. 3,2,5-Me(HO)(O<sub>2</sub>N)C<sub>6</sub>H<sub>2</sub>CHO (6.03 g.) gave by the Perkin reaction 4.8 g, 8-methyl-6-nitrocoumarin, m. 197-8° (from dilute HOAc), and 0.13 g, 3-methyl-5-nitrocoumarinic acid, m. 233-4° (decomposition) (from aqueous alc.). The Duff reaction with 100 g, o-Me2CHC<sub>6</sub>H<sub>4</sub>OH yielded 15.5 g, 3,2-Me2CH(HO)C<sub>6</sub>H<sub>3</sub>CHO (X), b<sub>6</sub> 88-94°, and 1.3 g, 6,2,4-Me2CH(OHC)2C<sub>6</sub>H<sub>2</sub>OH, m. 80-1°. Nitration of 10.5 g, X with fuming HNO<sub>3</sub> in HOAc at room temperature gave 11 g, 5-O<sub>2</sub>N derivative (XI), m. 105-6° (pale yellow plates from HOAc). Treatment of 5.23 g, XI 10 hrs. in a Perkin reaction gave 3.5 g, 6-nitro-8-isopropylcoumarin, m. 152-3° (colorless plates from 80% HOAc). No coumarinic acid could be isolated and no coumaric acid appeared to be formed during the Perkin reaction. The Duff reaction with 5,2-Me(Me3C)C<sub>6</sub>H<sub>3</sub>OH (100 g.) yielded 14 g, 6,3,2-Me(Me3C)(HO)C<sub>6</sub>H<sub>2</sub>CHO (XII), m. 23-3.5°, b<sub>3</sub> 104-6°. Nitration of 5.6 g, XII yielded 4 g, 5-O<sub>2</sub>N derivative (XIII), m. 114-14.5° (pale yellow needles or plates from alc.). XIII (1.19 g.) formed 0.88 g, 8-tert-butyl-5-methyl-6-nitrocoumarin, m. 141.5-2.5° (pale yellow needles from 1:1 HOAc-alc.). No acid could be isolated. Nitration of 7 g, 3,2-Ph(HO)C<sub>6</sub>H<sub>3</sub>CHO gave 6.5 g, 5-O<sub>2</sub>N derivative (XIV), m. 143-4° (light brown needles from alc.). XIV (4.05 g.) yielded 1.95 g, 6-nitro-8-phenylcoumarin, m. 210-11° (colorless needles from 80% HOAc), and a very small amount of an acid, presumably 5-nitro-3-phenylcoumarinic acid, m. 185-90° (decomposition). Bromination of 6-nitrocoumarin by Dey and Row's method (cf. C.A. 18, 1658) using concentrated H<sub>2</sub>SO<sub>4</sub> instead of Ac<sub>2</sub>O gave 83% 8-Br derivative 2,3,5-HO(MeO)(O<sub>2</sub>N)C<sub>6</sub>H<sub>2</sub>CHO (9.85 g.) gave 42% 8-methoxy-6-nitrocoumarin, m. 206-7°, and 0.22 g, 3-methoxy-5-nitrocoumarinic acid, m. 252-3° (decomposition) (cream-colored needles from aqueous alc.). The coumarin could not be converted into a stable coumarinic acid. Nitration of 4.2-Me(HO)C<sub>6</sub>H<sub>3</sub>CHO (13.4 g.) in HOAc at room temperature gave 2.9 g, 3-O<sub>2</sub>N derivative (XV), m. 106-7°, and 6.2 g, 5-O<sub>2</sub>N derivative, m. 146-7° (both from alc.). XV (1.45 g.) yielded 0.85 g, 7-methyl-8-nitrocoumarin, m. 166-7°, and a coumarinic acid which was stable at room temperature, but reverted to the coumarin below its m.p. A Duff reaction converted 3,4-Me2C<sub>6</sub>H<sub>3</sub>OH in 29% yield into 4,5,2-Me2(HO)C<sub>6</sub>H<sub>2</sub>CHO, which was nitrated in a 78% yield to the 3-O<sub>2</sub>N derivative (XVI). XVI (5.6 g.) gave 3.5 g, 6,7-dimethyl-8-nitrocoumarin (XVII), m. 202-3° (pale yellow plates from 80% HOAc), and 0.46 g, 4,5-dimethyl-3-nitrocoumarinic acid, m. 215-16° (decomposition) (yellow plates from alc.). The coumarinic acid was prepared from XVII, but reverted to XVII in a few hrs. even after drying. Nitration of 3,2,4,6-ClMe2(HO)C<sub>6</sub>HCHO (9.23 g.) yielded 10.7 g, 5-O<sub>2</sub>N derivative (XVIII), m. 139-40° (pale yellow needles from alc.). XVIII (5.74 g.) gave 4.4 g, 6-chloro-5,7-dimethyl-8-nitrocoumarin, m. 205-6° (light brown needles from 80% HOAc). None of the corresponding coumaric acid was isolated and only an unstable coumarinic acid was obtainable. 7-Hydroxy-3,4-benzocoumarin (5 g.) yielded 1.5 g, 7-hydroxy-2,6,8-trinitro-3,4-benzocoumarin (XIX), m. 253° (decomposition) (yellow needles from 60% HOAc). XIX treated with a min. amount of alkaline gave 2',4'-dihydroxy-3',4,5'-trinitrophenyl-2-carboxylic acid, m. 135-6° (decomposition) (from aqueous alc.). Powdered 8-aminocoumarin (4.03 g.) was diazotized in HCl, the product added to K<sub>3</sub>Cu(CN)<sub>4</sub> at 85-90°, the mixture stirred 1 hr., cooled, and filtered. The alc. extract of the residue yielded 2 g, 8-cyanocoumarin, m. 221.5-2.5° (almost white needles from alc.).

#### Hit Structure

CAS Registry Number  
96463-25-1 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3-hydroxy-2,4,8-trinitro- (CA INDEX NAME)



OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD  
(2 CITINGS)

. L8 ANSWER 155 OF 165 CAPLUS COPYRIGHT 2011 ACS ON STN

Accession Number  
1956:88989 CAPLUS [Full-text](#)  
Document Number  
50:88989

Title  
Polysaccharides from *Penicillium luteum*  
Author/Inventor  
Lloyd, P. F.; Pon, G.; Stacey, M.  
Patent Assignee/Corporate Source  
Univ. Birmingham, UK  
Source  
Chemistry & Industry (London, United Kingdom) ( 1956) 172-3 CODEN: CHINAG; ISSN: 0009-3068

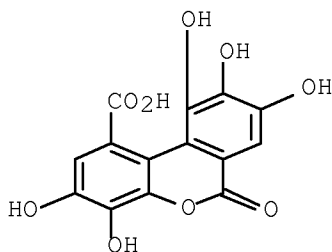
Document Type  
Journal  
Language  
Unavailable

Abstract  
Luteic acid, isolated from the metabolic products of *Penicillium luteum* grown on glucose (I), is a high polymer of I and malonic acid (II) in the ratio 2:1. Removal of II by either acidic or basic hydrolysis gave luteose, [α]<sub>D</sub><sup>-33</sup>, a neutral polysaccharide consisting of β-l units. P. luteum acted on I to give a polysaccharide, yellow powder, slightly soluble in H<sub>2</sub>O, which on acid hydrolysis (0.1N H<sub>2</sub>SO<sub>4</sub>) gave a mixture of I, mannose, galactose, fructose (trace), and II as shown by chromatography and ionophoresis of the hydrolysis product. Following an elaborate series of seps. the following sugars were identified: 68% 2,3,4-tri-, 16% 2,3-di-, and 16% 2,4-dimethylglucopyranose. No tetramethylglucopyranose was detected.

#### Hit Structure

CAS Registry Number  
476-67-5 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-1-carboxylic acid, 3,4,8,9,10-pentahydroxy-6-oxo- (CA INDEX NAME)



OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

L8 ANSWER 156 OF 165 CAPLUS COPYRIGHT 2011 ACS ON STN

Accession Number  
1953:6414 CAPLUS Full-text  
Document Number  
47:6414

Title  
Structure of phenyldihydrothebaine

Author/Inventor  
Bentley, K. W.; Robinson, Robert  
Patent Assignee/Corporate Source  
Univ. Oxford, UK

Source  
Journal of the Chemical Society (1952) 947-57 CODEN: JCSOA9; ISSN: 0368-1769

Document Type  
Journal

Language  
Unavailable

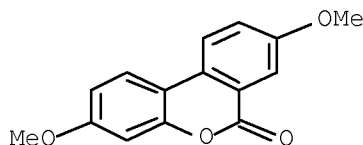
Abstract

The structure of phenyldihydrothebaine (I), deduced from existing data on theor. grounds (R., C.A. 42, 2728e), has been confirmed by oxidation of the base to BzH, BzOH, and 4-MeOC<sub>6</sub>H<sub>3</sub>(CO<sub>2</sub>H)<sub>2</sub> and by exhaustive methylation of its Me ether to a N-free compound that yields 5,6-(MeO)<sub>2</sub>C<sub>6</sub>H<sub>3</sub>C<sub>6</sub>H<sub>4</sub>OMe-5 and the corresponding dialdehyde on oxidation with KMnO<sub>4</sub> and the same aldehyde on ozonolysis. I.HClO<sub>4</sub> (15 g.) in 100 mL. 2 N NaOH, treated (2 h.) with 75 g. KMnO<sub>4</sub> in 1 l. H<sub>2</sub>O, heated 2 h. on the steam bath (BzH formed during the oxidation), the filtrate and washings concentrated and acidified, give a precipitate (II) and a filtrate (III); II, extracted with H<sub>2</sub>O, gives BzH; the residue was warmed with NaHCO<sub>3</sub>, acidified, and the pale brown-gray acid was converted into the Cu salt, C<sub>20</sub>H<sub>19</sub>O<sub>6</sub>NCu<sub>2</sub>H<sub>2</sub>O, decomps. above 250°; this may be the salt of 2,4-HO<sub>2</sub>C(MeO)C<sub>6</sub>H<sub>3</sub>CH<sub>2</sub>CH<sub>2</sub>NMeCHPhCOCO<sub>2</sub>H. III, saturated with (NH<sub>4</sub>)<sub>2</sub>SO<sub>4</sub> and extracted with ether, gives 2.1 g. 4-MeOC<sub>6</sub>H<sub>3</sub>(CO<sub>2</sub>H)<sub>2</sub>, m. 170°. (+)-α-l.HCl (7 g.) in 100 mL. 10% NaOH, treated with 3.08 mL. Me<sub>2</sub>SO<sub>4</sub> in 8 mL. MeOH and the solid dissolved in warm dilute HClO<sub>4</sub>, gives (+)-α-phenyl-dihydrothebaine Me ether perchlorate, m. 205°, [α]<sub>D</sub><sup>21</sup> 9.26° (H<sub>2</sub>O); methiodide, m. 205°. (+)-α-Phenyldihydrothebaine methine Me ether-Mel (from 21 g. base) in 100 mL. MeOH and 12.5 g. Na in 250 cc. MeOH, refluxed 2 h., poured into H<sub>2</sub>O, saturated with NH<sub>4</sub>Cl, extracted with ether, and the ether shaken with 2 N HCl, give 15 g. (+)-3,4-dimethoxy-2-(5-methoxy-2-vinylphenyl) stilbene (IV), m. 115°, [α]<sub>D</sub><sup>18</sup> 59° (Me<sub>2</sub>CO, c 2); the racemate (prepared by heating 10 min. at 130°) m. 124°, a small quantity of a very sparingly soluble amorphous polymer, no definite m.p., mol. weight above 5000, is also formed during the heating. IV, shaken with H (3 atmospheric) in AcOEt over Raney Ni, gives (+)-2-(2-ethyl-5-methoxyphenyl)-3,4-dimethoxybiphenyl, b.p. 1.220°, [α]<sub>D</sub><sup>18</sup> 3.5° (EtOH), partial racemization probably occurs during the distillation. IV (1.7 g.) in 25 mL. Me<sub>2</sub>CO, treated (1.5 h.) with 4.25 g. KMnO<sub>4</sub> in 350 mL. warm Me<sub>2</sub>CO, the residue warmed with dilute Na<sub>2</sub>CO<sub>3</sub>, and the filtrate extracted with ether, gives 2,2'-diformyl-5,6,5'-trimethoxybiphenyl (V), isolated as the bis(2,4-dinitrophenylhydrazones), orange-red, m. 277°; the Na<sub>2</sub>CO<sub>3</sub> solution yields 5,6,5'-trimethoxydiphenic acid (VI), m. 215°. VI with concentrated H<sub>2</sub>SO<sub>4</sub> (30 min. at 50°) yields 1,5,6-trimethoxyfluorenone-4-carboxylic acid, yellow, m. 256° (2,4-dinitrophenylhydrazone, dark red, amorphous, m. 286°). Acetylthebaol, oxidized with CrO<sub>3</sub> in cold AcOH, gives 4-acetoxy-3,6-dimethoxyphenanthraquinone (acetylthebaolquinone) (VII), bright yellow, m. 205° (phenazine derivative, C<sub>24</sub>H<sub>18</sub>O<sub>4</sub>N<sub>2</sub>, yellow, m. 265°). VI (10 g.) in 120 mL. hot AcOH, mixed with 16 mL. 30% H<sub>2</sub>O<sub>2</sub>, kept 2 h. at 70-80°, treated with an addnl. 16 mL. H<sub>2</sub>O<sub>2</sub>, heated 5 h. at 100°, kept overnight, heated on the water bath, and treated with H<sub>2</sub>O to incipient precipitation, give a precipitate (VIII); further dilution (total volume approx. 1700 mL.) gives 5 g. 6-acetoxy-5,5'-dimethoxydiphenic acid (VIII), m. 229°. VIII, heated 30 min. at 50° with concentrated H<sub>2</sub>SO<sub>4</sub>, gives 8,3'-dimethoxy-3,4-benzocoumarin (IX), m. 148-9°. VIII (1.5 g.) and 15 mL. 20% NaOH, heated 2 h. on the steam bath, give 6-hydroxy-5,5'-dimethoxydiphenic acid (X), m. 172° and then 235° (lactone formation ?); with concentrated H<sub>2</sub>SO<sub>4</sub> (30 min. at 50°) X yields IX. X with Me<sub>2</sub>SO<sub>4</sub> in 20% aqueous NaOH gives VI. VII, shaken with dilute Na<sub>2</sub>CO<sub>3</sub>, gives a small quantity of VIII; the insol. portion is regarded as the Ac derivative, very pale brown, m. 192°, of 4'-hydroxy-6,3'-dimethoxy-3,4-benzocoumarin (XI), pale pink, m. 172°, intense blue color with FeCl<sub>3</sub>. XI (5 g.) in 10.3 mL. boiling 10% KOH, treated (2 h.) with 16.9 mL. Me<sub>2</sub>SO<sub>4</sub> and boiled an addnl. 0.5 h., gives 4.1 g. 5,6,2',5'-tetramethoxy-2-diphenylcarboxylic acid (XII), m. 162.5°. XII is unchanged on heating 2 h. on the steam bath with sirupy H<sub>3</sub>PO<sub>4</sub> and P<sub>8</sub>O<sub>6</sub>. XII (1 g.), changed into the acid chloride with SOCl<sub>2</sub> and the CS<sub>2</sub> solution refluxed with 0.85 g. AlCl<sub>3</sub>, gives 1,6-dihydroxy-4,5-dimethoxyfluorenone (or an isomer) (XIII), m. 147°, intense green color with FeCl<sub>3</sub>. XII (1.2 g.) and 0.83 g. PCl<sub>5</sub> in 10 mL. C<sub>6</sub>H<sub>6</sub>, warmed on the steam bath, cooled, treated with 1.95 g. SnCl<sub>4</sub> in 5 mL. C<sub>5</sub>H<sub>6</sub>, kept 6 h. at room temperature, and crystallized from EtOH, give prisms of 1,4,3,6-tetramethoxyfluorenone, bright yellow, m. 183°, intense yellow fluorescence (2,4-dinitrophenylhydrazone, bright red, m. 290°), and needles of XIII (2,4-dinitrophenylhydrazone, m. 285°). IV (5.3 g.) in 30 mL. CHCl<sub>3</sub>, cooled in ice H<sub>2</sub>O and treated with O<sub>2</sub> containing O<sub>3</sub>, the ozone reduced with 20 mL. AcOH, 30 mL. ether, 0.2 mL. H<sub>2</sub>O, and 5 g. Zn, gives 2 g. V, light brown, b.p. 3.215-19° (bath), and some BzH; on one occasion, there results a small quantity of a compound, C<sub>17</sub>H<sub>16</sub>O<sub>5</sub>, m. 147° (possibly the lactone of 2,5,6-HO<sub>2</sub>C(MeO)<sub>2</sub>C<sub>6</sub>H<sub>4</sub>C<sub>6</sub>H<sub>4</sub>(OMe)CH<sub>2</sub>OH-5.2 or 2,5,6-HOCH<sub>2</sub>(MeO)<sub>2</sub>C<sub>6</sub>H<sub>4</sub>C<sub>6</sub>H<sub>4</sub>(OMe)<sub>2</sub>CO<sub>2</sub>H-5.2). Oxidation of V with KMnO<sub>4</sub> in H<sub>2</sub>O gives VI; V, warmed with 25% NaOH at 100°, gives a black tar; V is unchanged by cold alkali and does not react with CH<sub>2</sub>(CO<sub>2</sub>H)<sub>2</sub> and C<sub>5</sub>H<sub>5</sub>N (24 h. on the steam bath). Thebaine (5 g.) in 100 mL. boiling C<sub>6</sub>H<sub>6</sub>, treated (1 h.) with 5 g. MgI<sub>2</sub> in 40 mL. C<sub>6</sub>H<sub>6</sub> and 10 mL. ether and boiled 4 h., gives the Mgl product (XIV); it degenerates rapidly on exposure to moist air; boiling 3 min. with 15% HCl, XIV gives a gum which with Me<sub>2</sub>SO<sub>4</sub> and alkali does not give an identifiable compound. XIV is not oxidized to a known acid. XIV and excess PhMgBr in C<sub>6</sub>H<sub>6</sub>, shaken 24 h. at room temperature, yield (+)-l.HClO<sub>4</sub>. Reduction of XIV in liquid NH<sub>3</sub> with Na gives a compound (C<sub>19</sub>H<sub>24</sub>O<sub>3</sub>N<sub>2</sub>) 2.Hgl<sub>4</sub>. Definite compds. were not isolated from the reduction of XIV with LiAlH<sub>4</sub>. 3,4,6-Trimethoxyphenanthrene (12 g.) in 30 mL. AcOH at -5°, treated (1.5 h.) with 12.5 g. CrO<sub>3</sub> in 3 mL. H<sub>2</sub>O and 18 mL. AcOH (temperature not above 30°), gives 4.5 g. 3,6-dimethoxy-1,4-phenanthraquinone (XV), orange, m. 223°, deep blue solution in concentrated H<sub>2</sub>SO<sub>4</sub>. XV and o-C<sub>6</sub>H<sub>4</sub>(NH<sub>2</sub>)<sub>2</sub> in AcOH, heated 1 h. on the steam bath, give 3-hydroxy-7'-methoxynaphtho(1',2':1,2)phenazine, orange, m. 295-7°. XV (4 g.) in 75 mL. AcOH, treated with 4 mL. 30% H<sub>2</sub>O<sub>2</sub> and heated 19 h. on the steam bath (3 mL. H<sub>2</sub>O<sub>2</sub> added each 3 h.), give 0.5 g. 8-carboxy-7-(2-carboxyvinyl)-2-methoxy-1,4-naphthoquinone, bright yellow, with 0.5 mol. H<sub>2</sub>O, m. 273-5° (decomposition); the major portion of the oxidation product, on further oxidation with alkaline KMnO<sub>4</sub>, gives 1,2,3,4-C<sub>6</sub>H<sub>2</sub>(CO<sub>2</sub>H)<sub>4</sub>. Oxidation of 1.5 g. thebaol with 1.9 g. CrO<sub>3</sub> in 0.5 mL. H<sub>2</sub>O and 12 mL. AcOH gives 0.4 g. XV.

Hit Structure

CAS Registry Number  
1680-85-9 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3,8-dimethoxy- (CA INDEX NAME)



OS.CITING REF COUNT: 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD (4 CITINGS)

L8 ANSWER 157 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number  
1949:27300 CAPLUS [Full-text](#)

Document Number  
43:27300

Title  
Synthesis of 4,4'-dihydroxydibenzo- $\alpha$ -pyrone, pigment of the scent glands of the beaver (Castor fiber)

Author/Inventor  
Lederer, E.; Polonsky, J.

Source  
Bulletin de la Societe Chimique de France ( 1948) 831-4 CODEN: BSCFAS; ISSN: 0037-8968

Document Type  
Journal

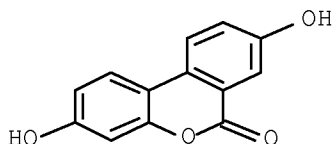
Language  
Unavailable

Abstract  
cf. C.A. 40, 3809.3. 3-Hydroxy-6-bromo-benzoic acid (I) (2.7 g.), m. 158-60° (from C<sub>6</sub>H<sub>6</sub>-Et<sub>2</sub>O), is prepared from 5 g. of the 3-MeO compound (II) by treatment with 25 cc. concentrated HI, 5 cc. AcOH, and traces of PhOH and red P. I (0.5 g.) and 0.5 g. resorcinol in 5 cc. N NaOH treated at the b.p. with 0.2 cc. 10% aqueous CuSO<sub>4</sub> yields 75 mg. (15%) 4,4'-dihydroxydibenzo- $\alpha$ -pyrone (III), yellowish crystals, decomposing about 350° (from dilute EtOH). Similar reactions with I or II and phloroglucinol, orcinol, and dimedone yield the following compds.: 4,4',6'-trihydroxydibenzo- $\alpha$ -pyrone (IV) (22% yield), does not m. up to 350° (triacetate, colorless, m. 206-9°; tri-Me ether, yellow, m. 187-90°); the 4-MeO analog of IV (70% yield), m. 312-14° (from aqueous EtOH); 4-methoxy-4'-hydroxy-6'-methyldibenzo- $\alpha$ -pyrone (25% yield), m. 266-8° (Me ether, m. 184-6°); 4-hydroxy-4',4'-dimethyl-6'-keto-3',4',5',6'-tetrahydrodibenzo- $\alpha$ -pyrone (V) (100 mg. from 370 mg. of each reactant), m. 218°; and the 4-MeO analog of V (30% yield), m. 147-9°. The diacetate (VI) of III m. 210-12°; the 4-MeO analog (prepared from II and resorcinol in 50% yield), m. 275-8° (from 90% EtOH); and the 4,4'-di-MeO analog (VII), m. 151-3°. VII (20 mg.) boiled with Me<sub>2</sub>SO<sub>4</sub> and 2 cc. N NaOH yields 2',4,4'-trimethoxy-2-biphenylcarboxylic acid (VIII), m. 184-7° (from EtOH). By mixed m.ps., VI, VII, and VIII have the same constitution as the corresponding derivs. prepared from one of the 2 yellow pigments of castoreum; this pigment therefore has the same constitution as III, as previously indicated by degradative methods.

Hit Structure

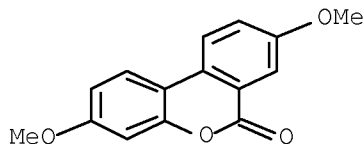
CAS Registry Number  
1143-70-0 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3,8-dihydroxy- (CA INDEX NAME)



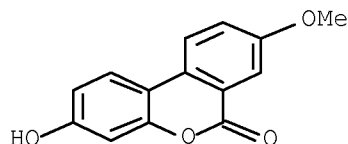
CAS Registry Number  
1680-85-9 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3,8-dimethoxy- (CA INDEX NAME)



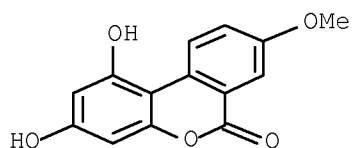
CAS Registry Number  
35233-17-1 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3-hydroxy-8-methoxy- (CA INDEX NAME)



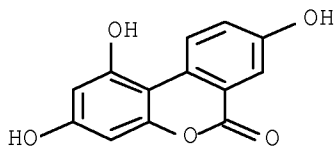
CAS Registry Number  
685829-30-5 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 1,3-dihydroxy-8-methoxy- (CA INDEX NAME)



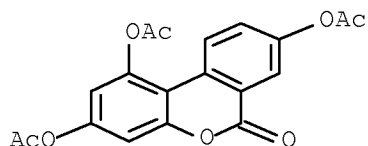
CAS Registry Number  
854236-40-1 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 1,3,8-trihydroxy- (CA INDEX NAME)



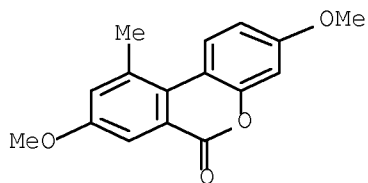
CAS Registry Number  
854241-33-1 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 1,3,8-tris(acetyloxy)- (CA INDEX NAME)



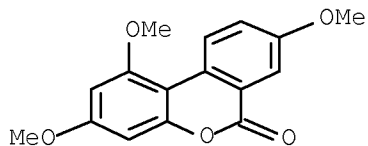
CAS Registry Number  
860702-93-8 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 3,8-dimethoxy-10-methyl- (CA INDEX NAME)



CAS Registry Number  
860702-94-9 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 1,3,8-trimethoxy- (CA INDEX NAME)



OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD  
(3 CITINGS)

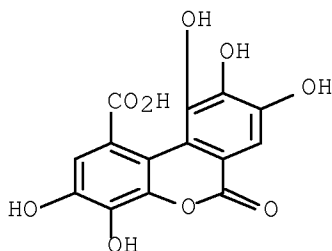
Accession Number  
1943:43307 CAPLUS [Full-text](#)  
Document Number  
37:43307  
Title  
Composition of herba alchemillae vulgaris  
Author/Inventor  
Muhlemann, H.  
Source  
Pharmaceutica Acta Helveticae (1938), 13, 277-99 CODEN: PAHEAA; ISSN: 0031-6865  
Document Type  
Journal  
Language  
Unavailable

Abstract  
cf. Kroeber, C. A. 21, 2166. The drug, stabilized at its collection with hot alc. vapor, gave H<sub>2</sub>O 7.35%; total ash 9.06; HCl-insol. ash 1.30; aqueous total extract 25.98; alc. total extract 4.15; tannins 6.40-8.40%; saponins none;  $\alpha$ -glucoside or glucotannide by Bourquelot biol. test, probably pos.;  $\beta$ -glucoside by emulsin neg. Steam distillation yielded traces of salicylic acid (FeCl<sub>3</sub>). Successive treatment with organic solvents yielded: petrol. ether, dotriacontane, C<sub>32</sub>H<sub>66</sub>, m. 68-8.5°, and phytosterol, m. 131-2°, also a mixture of palmitic and stearic acids, pure stearic acid and traces of liquid fat acids. MeOH yielded crystallized C<sub>16</sub>H<sub>26</sub>O<sub>6</sub>, m. 214.5°, apparently unstable. No physiol. test could be made of this substance. A 70% alc. extract yielded after acetylizing tetraacetyl ellagic acid, m. 334°, saponified with Ba(OH)<sub>2</sub> to ellagic acid. Gallic acid was absent, but luteic acid very probably present.

#### Hit Structure

CAS Registry Number  
476-67-5 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-1-carboxylic acid, 3,4,8,9,10-pentahydroxy-6-oxo-  
(CA INDEX NAME)



L8 ANSWER 159 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number  
1941:27627 CAPLUS [Full-text](#)  
Document Number  
35:27627

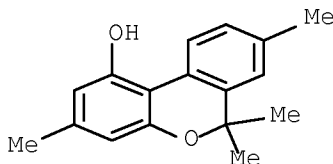
Title  
Cannabis indica. VI. The condensation of pulegone with alkyl resorcinols. A new synthesis of cannabinol and of a product with hashish activity  
Author/Inventor  
Ghosh, R.; Todd, A. R.; Wright, D. C.  
Source  
Journal of the Chemical Society (1941) 137-40 CODEN: JCSOA9; ISSN: 0368-1769  
Document Type  
Journal  
Language  
Unavailable

Abstract  
cf. C. A. 35, 7423. Crude pulegol (20 g.), 10 g. orcinol monohydrate (I), 20 g. anhydrous ZnCl<sub>2</sub> and 200 cc. decalin, heated at 130-40° for 2 hrs., give 6'-hydroxy-2,2,5',4"-tetramethyl-1',2',3',4',5',6'-hexahydrodibenzopyran, yellow viscous oil, b. 140-50° (bath temperature)/10-2; it gives a blue color with 2,6-dichlorobenzoquinonechloroimide (II), but no color with EtOH-KOH; light absorption in EtOH shows a maximum at 2800 Å. ( $\epsilon$  1300) and a min. at 2670 Å. Refluxing 5 cc. pulegone, 5.5 g. I and 30 cc. 98-9% HCO<sub>2</sub>H for 3.5 hrs. and hydrolysis with MeOH-KOH give a mixture of isomers (III), C<sub>17</sub>H<sub>22</sub>O<sub>2</sub>, b. 150° (bath temperature)/2 + 10-3 mm., maximum absorption 2750 Å. ( $\epsilon$  ca. 5000), min. 2500 Å.; the III obtained in various expts. give a blue color with II but no color with EtOH-KOH. 6"-Acetoxy-2,2,5',4"-tetramethyl-3',4',5',6'-tetrahydrodibenzopyran (C. A. 34, 7907.6), heated with Pd-C at 300-20° until evolution of H ceased, gives after removal of the Ac group by MeOH-KOH 6'-hydroxy-2,2,5',4"-tetramethyldibenzopyran (IV), b. 152° (bath temperature)/10-3 mm., maximum absorption at 2820 Å. ( $\epsilon$  14,740), min. at 2500 Å.; p-nitrobenzoate, pale yellow, m. 215-16°. Dehydrogenation of III (as the acetate) also gives IV. Condensation of pulegone and olivetol monohydrate with HCO<sub>2</sub>H (refluxing 3 hrs.) gives a tetrahydrocannabinol (V), C<sub>21</sub>H<sub>30</sub>O<sub>2</sub>, b. 170° (bath temperature)/10-3 mm., absorption maximum 2760 Å. ( $\epsilon$  6200), min. 2490 Å.; it gives a blue color with II; it is pharmacol. active in the Gayer test on rabbits (2.5 mg./kg.) but inactive at 1 mg./kg. Dehydrogenation of V gives cannabinol.

#### Hit Structure

CAS Registry Number  
1194687-95-0 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-1-ol, 3,6,6,8-tetramethyl- (CA INDEX NAME)



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD  
(1 CITINGS)

L8 ANSWER 160 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number  
1941:4532 CAPLUS [Full-text](#)  
Document Number  
35:4532

Title  
Cannabis indica. V. Synthesis of cannabinol  
Author/Inventor

Ghosh, R.; Todd, A. R.; Wilkinson, S.

Source

Journal of the Chemical Society (1940) 1393-6 CODEN: JCSOA9; ISSN: 0368-1769

Document Type

Journal

Language

Unavailable

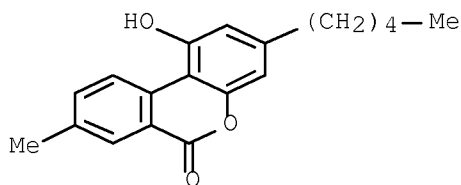
Abstract

cf. C. A. 34, 7907.6. In previous papers evidence has been presented that cannabiol is 6"-hydroxy-2,5'-trimethyl-4"-amylidibenzopyran (I); this has been confirmed by the synthesis of I. Model expts. were first carried out with more accessible materials than olevitol. 7-Hydroxy-3,4-cyclohexenocoumarin (II) (27 g.), refluxed with 120 cc. of 15% aqueous NaOH, 30 cc. Me<sub>2</sub>SO<sub>4</sub> slowly added and heating continued for 2 hrs., Me<sub>2</sub>SO<sub>4</sub> and NaOH being added from time to time, gives 24 g. of 1-(2',4'-dimethoxyphenyl)-1-cyclohexene-2-carboxylic acid, m. 153-4°; Et ester (III), b<sub>0.04</sub> 130-40°, m. 48°. 7-Hydroxy-3,4-benzocoumarin (IV), m. 233°, was prepared in the following ways: heating 1.8 g. of III with 0.4 g. S at about 300° for 4 hrs., and refluxing with 15 cc. 48% HBr for 2 hrs. give 0.7 g. IV; heating III with Se at 300-20° for 24 hrs. gives 0.5 g. IV; 10 g. II and Se at 300-20° for 36 hrs. give 6 g. of IV; heating 0.5 g. of the Ac derivative of II with Pd-C at 300-10° for 7 hrs., followed by hydrolysis with EtOH-KOH, gives 0.3 g. of IV. Heating 6"-acetoxy-2,-2,4"-trimethyl-3',4',5',6'-tetrahydrodibenzopyran with Pd-C at 300-10° for about 30 min. gives a nearly quant. yield of 6"-hydroxy-2,2,4'-trimethyldibenzopyran, m. 164°. 5-Acetoxy-5'-methyl-7-amyl-3,4-cyclohexenocoumarin, heated with Pd-C at 300-10° for 30 min., gives after hydrolysis 5-hydroxy-5'-methyl-7-amyl-3,4-benzocoumarin, m. 187°; acetate, m. 98°; MeMgI in PhOMe gives I. 6"-Hydroxy-2,2,5'-trimethyl-4"-amyl-3',4',5',6'-tetrahydrodibenzopyran yields an acetate, b. 140-5° at 10-3 mm., which is a yellowish resin; heating with Pd-C at 300-10° for 30 min. and hydrolysis give I. 6-Hydroxy-5'-methyl-3,4-cyclohexenocoumarin on acetylation and reaction with MeMgI in PhOMe give 5"-hydroxy-2,2,5'-trimethyl-3',4',5',6'-tetrahydrodibenzopyran, a yellowish resin, b. 130-5° at 10-2 mm. Heating the Ac derivative with Pd-C at 300-10° gives 5"-hydroxy-2,2,5'-trimethyldibenzopyran, m. 118° (C. A. 34, 7907.3). The last series of reactions proves that no rearrangement occurs during the dehydrogenation process. Chloranil could not be used as a dehydrogenating agent in these reactions.

Hit Structure

CAS Registry Number  
1194700-82-7 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-6-one, 1-hydroxy-8-methyl-3-pentyl- (CA INDEX NAME)



OS.CITING REF COUNTI: 7 THERE ARE 7 CAPLUS RECORDS THAT CITE THIS RECORD  
(7 CITINGS)

L8 ANSWER 161 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number  
1940:51696 CAPLUS [Full-text](#)  
Document Number  
34:51696

Title  
Cannabis indica. III. The synthesis of dibenzopyran derivatives, including an isomer of cannabinol  
Author/Inventor  
Ghosh, R.; Pascall, D. C. S.; Todd, A. R.

Source  
Journal of the Chemical Society (1940) 1118-21 CODEN: JCSOA9; ISSN: 0368-1769

Document Type  
Journal

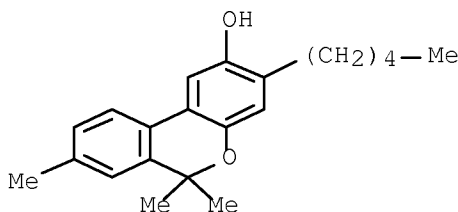
Language  
Unavailable

Abstract  
cf. C. A. 34, 5452.3. 3,4-AcNH(NC)C<sub>6</sub>H<sub>3</sub>Me in Ac<sub>2</sub>O-AcOH at 0° gives 90% of 3-N-nitrosoacetamido-4-cyanotoluene (I), pale yellow, very unstable, decomps. explosively on heating; on standing in C<sub>6</sub>H<sub>6</sub> 1.75 g. of I gives 0.83 g. of 2-cyano-5-methylbiphenyl, m. 87-8°, N being evolved. I and quinol di-Me ether at 60° (8 hrs.) gives 41% of 2'-cyano-2,5-dimethoxy-5'-methylbiphenyl (II), m. 97°; di-Et analog, m. 72-3° (24%). Refluxing 9 g. II with concentrated HBr gives 8 g. of 6-hydroxy-5'-methyl-3,4-benzocoumarin, m. 233-4°; acetate (III), m. 155°; 5 g. of III with MeMgI in Et<sub>2</sub>O-PhOMe gives 4 g. of 5'-hydroxy-2,2,5'-trimethyldibenzopyran, m. 118°; acetate, m. 86-7°; 3,5-dinitrobenzoate, yellow, m. 169°. 2-Hydroxy-5-methoxyvalerophenone (preparation given in 70-g. yield from 61 g. of PrCO<sub>2</sub>H) gives an Ac derivative, yellow, m. 72-3° (H<sub>2</sub>NCONHNH<sub>2</sub>.HCl in EtOH gives a mixture of the semicarbazone, pale green, m. 159-60°, and the kelazine, yellow, m. 161-2°). I (8 g.) and 68 g. 2,5-(MeO)<sub>2</sub>C<sub>6</sub>H<sub>3</sub>-Am at 45-50° give 3.5 g. of 2'-cyano-2,5-dimethoxy-5'-methyl-4-amylobenzene, b.p. 95-100°; refluxing with HBr for 5 hrs. gives 6-hydroxy-5'-methyl-7-amylobenzocoumarin, m. 191-2°; acetate (IV), m. 138-9°; IV and excess MeMgI give 5'-hydroxy-2,2,5'-trimethyl-4'-amyldibenzopyran, m. 110-11°; absorption maximum in EtOH at 2475, 2765, 3400 Å. (ε 11,550, 10,560, 7450). It is inactive in the Gayer test on rabbits at a dose of 5 mg./kg. I and orcinol di-Me ether give 2'-cyano-2',6'-dimethoxy-4',5'-dimethylazobenzene, bright red, m. 126°. Efforts to condense 3-N-nitrosoacetamidotoluene with Et veratrate yielded only a tarry product.

Hit Structure

CAS Registry Number  
1195630-93-3 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-2-ol, 6,6,8-trimethyl-3-pentyl- (CA INDEX NAME)



L8 ANSWER 162 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number  
1933:41536 CAPLUS [Full-text](#)  
Document Number  
27:41536

Title  
Biochemistry of microorganisms. XXVII. The production of luteic acid from various sources of carbon by *Penicillium luteum* Zukal

Author/Inventor  
Birkinshaw, John H.; Raistrick, Harold

Source  
Biochemical Journal (1933), 27, 370-5 CODEN: BJOAOK; ISSN: 0264-6021

Document Type  
Journal

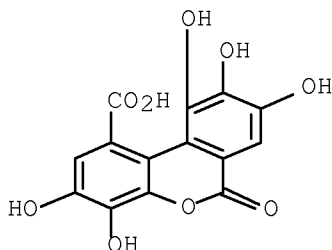
Language  
Unavailable

Abstract  
cf. C. A. 26, 4358. Luteic acid is elaborated by *Penicillium luteum* Zukal when grown in a synthetic medium containing as the sole source of C any of the following: glucose, fructose, galactose, mannose, xylose, arabinose and glycerol. Since luteic acid gives malonic acid and glucose on acid hydrolysis, proof is afforded of the conversion by this organism of the hexoses fructose, galactose and mannose, of the pentoses xylose and arabinose into glucose.

Hit Structure

CAS Registry Number  
476-67-5 CAPLUS

Chemical or Trade Name  
6H-Dibenzo[b,d]pyran-1-carboxylic acid, 3,4,8,9,10-pentahydroxy-6-oxo-  
(CA INDEX NAME)



OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD  
(2 CITINGS)

L8 ANSWER 163 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number  
1932:23613 CAPLUS [Full-text](#)  
Document Number

26:23613

Title

Biochemistry of microorganisms. XIII. New type of mucilaginous material, luteic acid, produced from dextrose by *Penicillium luteum*, Zukal

Author/Inventor

Raistrick, H.; Rintoul, M. L.

Source

Trans. Roy. Soc. (London) (1931), B220, 255-68

Document Type

Journal

Language

Unavailable

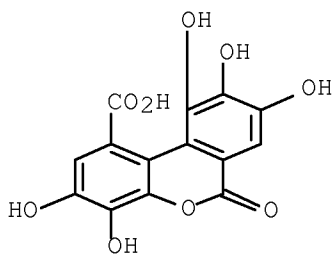
Abstract

*P. luteum*, Zukal, produces a colloidal material, luteic acid (Na salt,  $[\alpha]_D^{25} +46.190$  -47°), which on hydrolysis with N H<sub>2</sub>SO<sub>4</sub> gives dextrose and malonic acid. Hydrolysis with 0.25 N Ba(OH)<sub>2</sub> gives malonic acid and a polysaccharide, luteose,  $[\alpha]_D^{25} +46.4$ °, yielding dextrose on acid hydrolysis. The poly-saccharide unit of luteic acid is a condensation product of 2 mols. of dextrose with 1 of malonic acid with loss of 2 mols. of water, in which one CO<sub>2</sub>H group is free, while the other is combined and the CHO groups are linked in such a way as to destroy their aldehydic properties.

Hit Structure

CAS Registry Number  
476-67-5 CAPLUS

Chemical or Trade Name  
6R-Dibenzo[b,d]pyran-1-carboxylic acid, 3,4,8,9,10-pentahydroxy-6-oxo-  
(CA INDEX NAME)



\_L8 ANSWER 164 OF 165 CAPLUS COPYRIGHT 2011 ACS ON STN

Accession Number

1920:2516 CAPLUS [Full-text](#)

Document Number

14:2516

Title

The tannin of the knopper gall

Author/Inventor

Nierenstein, Maximilian

Patent Assignee/Corporate Source

Univ. Bristol

Source

Journal of the Chemical Society, Transactions ( 1919), 115, 1174-80 CODEN: JCHTA3; ISSN: 0368-1645

Document Type

Journal

Language

Unavailable

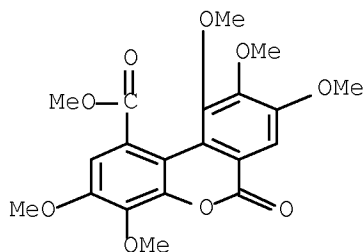
Abstract

Knopper tannin was prepared by extracting finely powdered and sieved knopper with boiling CHCl<sub>3</sub> or C<sub>2</sub>H<sub>2</sub>Cl<sub>4</sub>, to remove the gall fats, and then with acetone. The acetone extract was made up to 1.5 l. and the tannin precipitated with 300 cc. light petroleum. Purified by reprecipitation, the tannin was a pale colored, amorphous, hygroscopic substance which neither melted nor decomposed when heated above 300°. It was soluble in alc., acetone, ethyl acetate, acetic acid and water and insol. in C<sub>6</sub>H<sub>6</sub>, CHCl<sub>3</sub>, and light petroleum. It gave a greenish blue solution with FeCl<sub>3</sub> and the aqueous solution precipitated alkaloids and gelatin and is quantitatively adsorbed by caseinogen. Combustion gave C = 54.3%, H = 2.1%. Mol. weight in acetone 1628, 1654, 1708 and in alc. 1744, 1682, 1664.  $[\alpha]_D^{17} = +31.8$  in alc., and +8.4 in acetone. Other samples gave these analytical values of the same order. Hydrolysis with dilute H<sub>2</sub>SO<sub>4</sub> gave ellagic acid and dextrose. Analytical constants are given. The tannin was methylated with diazomethane in ethereal suspension. The product was an amorphous, colorless product, with no definite m. p., soluble in alc. acetone, CHCl<sub>3</sub> and C<sub>2</sub>H<sub>4</sub>Cl<sub>4</sub> but insol. in water or light petroleum. OMe, 36.9, 37.4, 37.2, 37.8 was obtained. Slightly variable results for other constants are given. The methylated tannin was hydrolyzed with 10% alc. KOH and an amorphous mixture obtained which gave a benzene-soluble fraction (I) and a benzene-insol. fraction (II). Further methylation of the first fraction converted it entirely to methyl pentamethoxyluteate, which crystallizes from alc. in small needles, m. 110°. The insol. fraction is apparently mostly tetramethoxyluteic acid. Further methylation gave the same product as fraction I. Knopper tannin is composed of luteic acid and dextrose, the luteic acid being predominant. Numerous references are given.

Hit Structure

CAS Registry Number  
19491-16-8 CAPLUS

Chemical or Trade Name  
6R-Dibenzo[b,d]pyran-1-carboxylic acid, 3,4,8,9,10-pentamethoxy-6-oxo-, methyl ester (CA INDEX NAME)



\_L8 ANSWER 165 OF 165 CAPLUS COPYRIGHT 2011 ACS on STN

Accession Number

1909:262 CAPLUS [Full-text](#)

Document Number

3:262

Title

Constitution of Tannin, IV

Author/Inventor

Nierenstein, M.

Patent Assignee/Corporate Source

Runcorn Research Lab., School Tropical Med., Liverpool

Source

Berichte der Deutschen Chemischen Gesellschaft ( **1909**), 41, 3015-9 CODEN: BDCGAS; ISSN: 0365-9496

Document Type

Journal

Language

Unavailable

Abstract

cf. C. A., 1908, 1137. When boiled with aqueous H<sub>2</sub>O<sub>2</sub> tannin yields a mixture of ellagic acid, formula (I) below, and pentahydroxydiphenylmethyloidecarboxylic acid ("luteolic acid") (II). Aggregates of reddish brown needles, darkens 305°, decomposes and evolves gas 338-42°. It gives a reddish brown color with NaHCO<sub>3</sub> and a yellow one with concentrate H<sub>2</sub>SO<sub>4</sub>; this acid and also Na<sub>2</sub>CO<sub>3</sub> transforms it into ellagic acid. The same effect is produced with acetylating agents. Treatment with HI and pyridine yields pentahydroxydiphenylmethyloide. Tetraacetyldigallide and COCl<sub>2</sub>, in presence of pyridine, yields tetraacetyldigallide (III); needles, m. 130-2°. Concentrate H<sub>2</sub>SO<sub>4</sub> produces a yellow solution; alcoholic H<sub>2</sub>O<sub>2</sub> converts it into ellagic acid, and dilute alcoholic-aqueous H<sub>2</sub>SO<sub>4</sub> hydrolyzes it to gallic acid. These results agree with the formula (IV) for tannin.

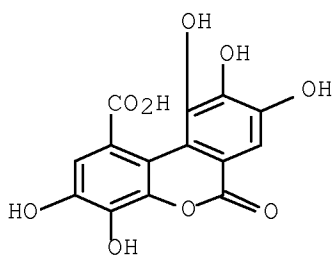
Hit Structure

CAS Registry Number

476-67-5 CAPLUS

Chemical or Trade Name

6H-Dibenzo[b,d]pyran-1-carboxylic acid, 3,4,8,9,10-pentahydroxy-6-oxo-  
(CA INDEX NAME)



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